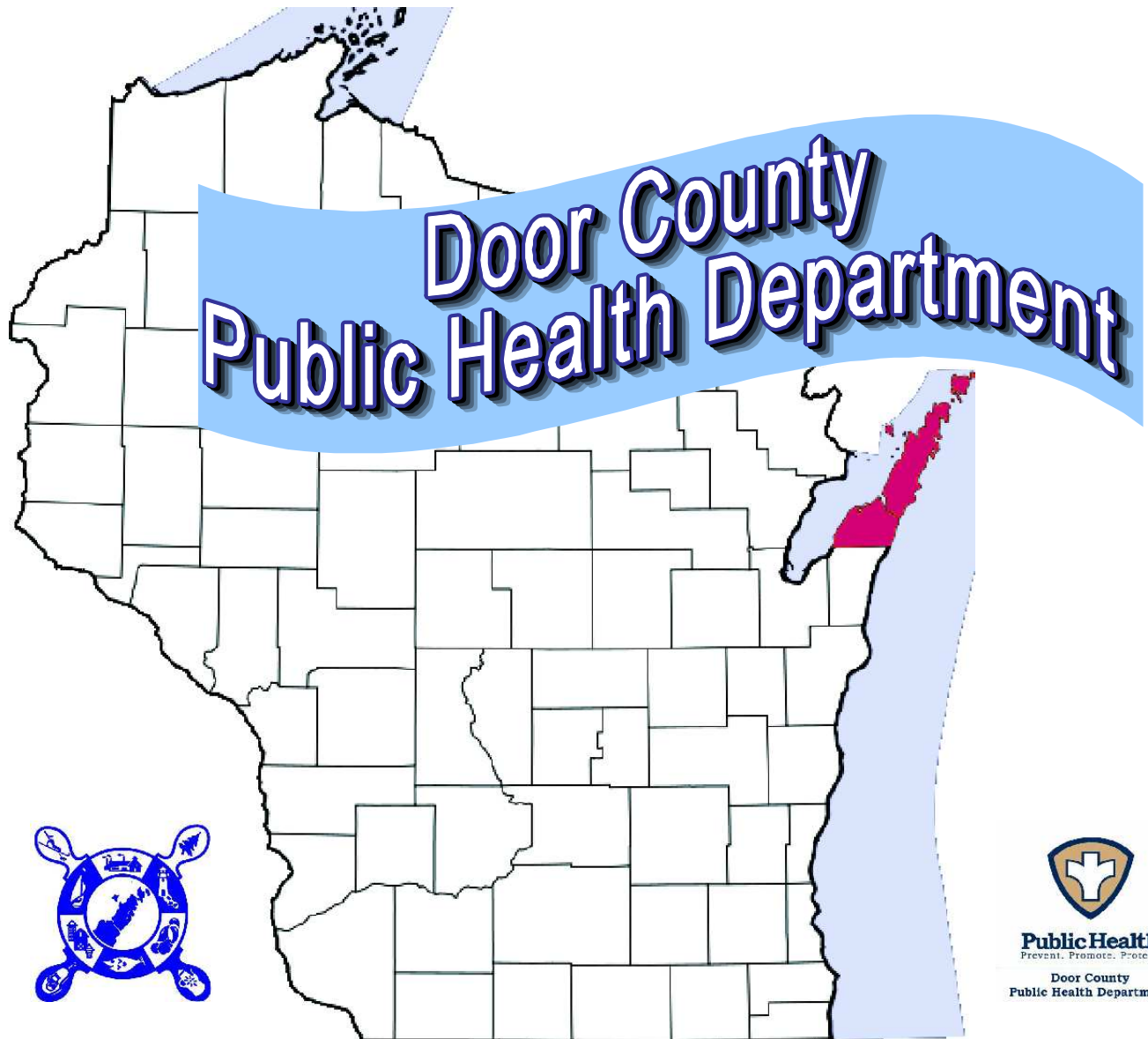


# 2011 Door County

## Community Health Needs Assessment



**Door County Community Needs Assessment 2011**  
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## Overview of Community Health Assessment Process

### Everyone Living Better, Longer

#### INTRODUCTION

This Community Health Assessment was written to fulfill Door County Public Health Department's requirement to regularly and systematically collect, assemble, analyze, and make available information on the health status of our county. The findings will be utilized to assist the health department and community partners in planning collaborative efforts designed to improve the health of our community. In the practice of public health, the health of the community is monitored and evaluated on a regular basis by examining key population health indicators such as local disease rates, causes of death, and behavioral health determinants such as smoking or drinking rates.

In Wisconsin, each local health department is required to periodically conduct a community health assessment. The assessment findings are widely disseminated among community members in an effort to allow public health practitioners and their community partners to identify community trends and priorities which may require attention as community health improvement plans are updated.

The 2011 Wisconsin County Health Rankings Report from the University of Wisconsin--Population Health Institute ranked Door County 18<sup>th</sup> of the 72 counties in relation to "health outcomes", and 20<sup>th</sup> in "health factors". Door County is in the top quartile of counties for health outcomes which includes mortality and morbidity rates. Door County is in the second quartile for health factors which includes health behaviors, clinical care, social and economic factors, and the physical environment. ([www.countyhealthrankings.org/wisconsin](http://www.countyhealthrankings.org/wisconsin))

#### HEALTHIEST WISCONSIN 2020

The State of Wisconsin has developed a State Health Plan, *Healthiest Wisconsin 2020: Everyone Living Better, Longer*. This plan encompasses two broad goals for our state to achieve within the next ten years. These goals include: 1) to improve health across the lifespan, and 2) to eliminate health disparities and achieve health equity. To help reach these goals, the state health plan outlines twelve areas for communities to address.

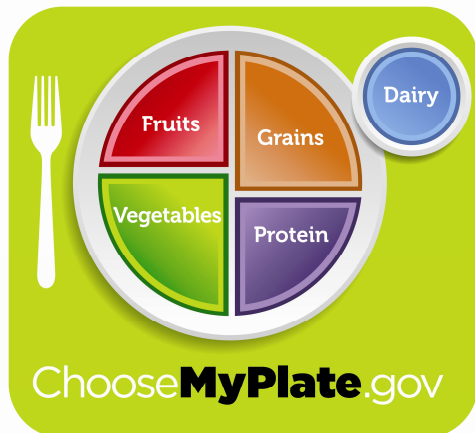
<b><i>The twelve areas include:</i></b>	
1. Adequate, Appropriate, and Safe Food and Nutrition	7. Oral Health
2. Chronic Disease Prevention and Management	8. Physical Activity
3. Communicable Disease Prevention and Control	9. Reproductive and Sexual Health
4. Environmental and Occupational Health	10. Tobacco Use and Exposure
5. Healthy Growth and Development	11. Alcohol and Other Drug Use
6. Mental Health	12. Injury and Violence

## COMMUNITY HEALTH IMPROVEMENT PROCESS (CHIP)

The Door County Health Department has gathered and compiled the data for the twelve focus areas for Door County. This information will be used during this process to help determine community assets and resources, to create a community health plan to identify the health priorities for Door County, and to mobilize community resources to implement the health plan. The department has asked representatives of the community to join the department in this process.

### Why is each focus area important?

(Reference: Information on focus areas is from *Healthiest Wisconsin 2020: Everyone Living Better, Longer, Section 5: Health Focus Areas*, <http://www.dhs.wisconsin.gov/hw2020/pdf/sectionfive.pdf>.



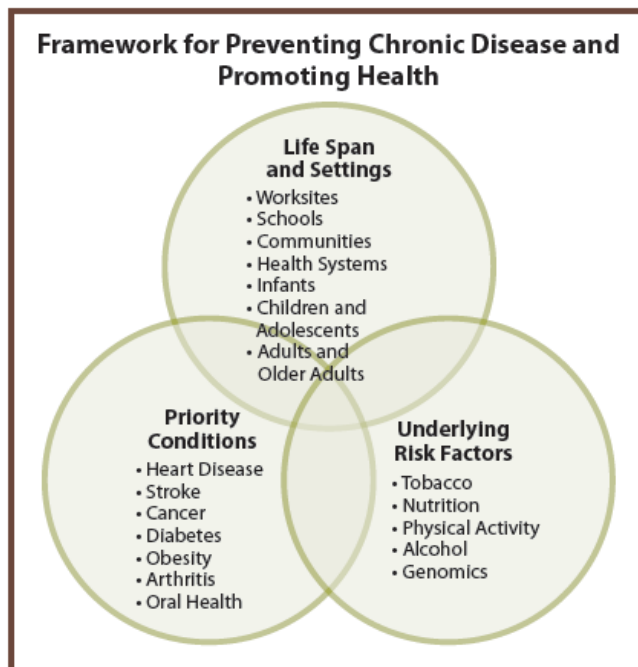
### 1: Adequate, Appropriate, and Safe Food and Nutrition

Adequate, appropriate and safe food and nutrition means the regular and sufficient consumption of nutritious foods across the life span, including breastfeeding, to support normal growth and development of children and promote physical, emotional and social well-being for all people.

### 2: Chronic Disease Prevention and Management

Chronic diseases, such as heart disease, stroke, cancer, diabetes, and arthritis, are among the most common and costly of health problems. Rates will rise over the next decade as the average age of the population increases and the current epidemic of obesity continues. Chronic diseases can be prevented or mitigated in many ways, including healthy diet and physical activity, eliminating tobacco use and substance abuse, screening, and disease-management programs.

For example, Trust for America's Health estimates that an investment of \$10 per person per year in community-based programs tackling physical inactivity, poor nutrition, and smoking could yield more than \$16 billion in medical cost savings annually within 5 years. This savings represents a remarkable return of \$5.60 for every dollar spent, without considering the additional gains in worker productivity, reduced absenteeism at work and school, and enhanced quality of life. <http://healthyamericans.org/reports/prevention08/Prevention08Exec.pdf> and <http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>



### 3: Communicable Disease Prevention and Control

Communicable disease prevention and control protect both individuals and entire populations. Effective immunizations have drastically reduced many, once common communicable diseases. Prompt identification and control of communicable diseases reduce illness and premature deaths, health costs, and absenteeism.



**Immunizations are for everyone!**



#### 4: Environmental and Occupational Health

Human health is affected in countless ways by the physical environments where we live and work, and by the quality of air, water and food. Foodborne illness

remains a major cause of health problems and economic disruption. Major disparities in health conditions such as childhood lead poisoning and asthma can result from inequities in the quality of home and neighborhood environments. Hazards are reduced through engineering, regulation, safe work practices and other methods. Increasingly, issues related to pollution, lack of physical activity, climate and injury are being addressed through comprehensive improvements to community design.

#### 5: Healthy Growth and Development

Early growth and development have a profound effect on health across the life span. Developmental disabilities can often be mitigated if detected promptly. Every week in Wisconsin almost 100 infants are born with a low birth weight; almost 6 of every 100 infants born with low birth weight will die before their first birthday. Infants born to African American mothers are nearly three times as likely to die in the first year of life as infants born to White mothers.







## 6: Mental Health

When comparing all diseases, mental illnesses rank first in terms of causing disability in the United States, Canada, and Western Europe (World Health Organization Report 2001, [http://www.who.int/whr/2001/en/whr01\\_en.pdf](http://www.who.int/whr/2001/en/whr01_en.pdf)).

One out of five people, or 20 percent of the population, will experience a mental health problem of some type during a one-year period (Robins L and Regier D, eds. 1991. *Psychiatric Disorders in America: The Epidemiologic Catchment Area Study*. New York, NY. The Free Press.)

Serious mental illness costs Americans at least \$193 billion a year in lost earnings alone (Kessler et al., 2008, <http://ajp.psychiatryonline.org/cgi/content/abstract/165/6/703>).

Lost earnings are just one aspect of the total economic burden, which also includes direct treatment costs such as medications and physicians' care (Kessler, 2008).

Mental health disorders are an enormous social and economic burden to society by themselves, but are also associated with increases in the risk of physical illness (World Health Organization, 2009), such as smoking, physical inactivity, obesity and substance abuse; factors that can lead to chronic disease, injury and disability.

2011 Mental Health America,  
<http://www.liveyourlifewell.org/>

## 7: Oral Health

Oral health means being free of mouth pain, tooth decay, tooth loss, oral and throat cancer, birth defects and other diseases that affect the mouth. Many diseases can start with oral symptoms, and many diseases beginning in the mouth can affect health in other parts of the body. Wisconsin experiences shortages of access for dental and other oral health services, particularly for people receiving BadgerCare or lacking insurance coverage for oral health services.

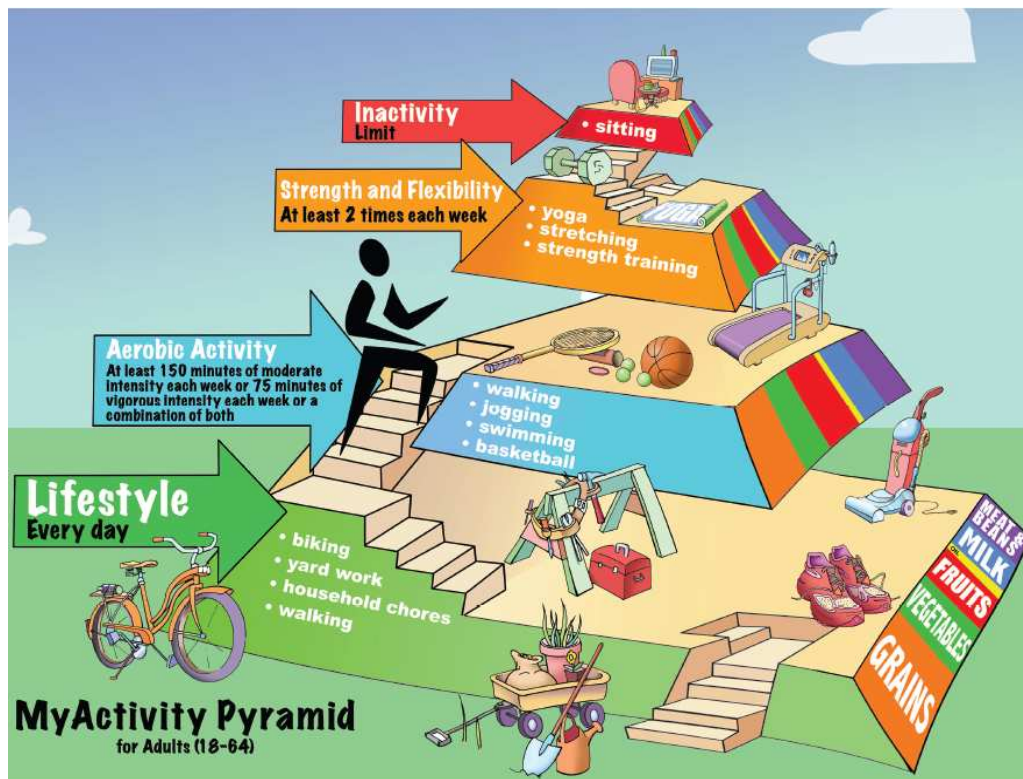
CDC,  
<http://www.cdc.gov/chronicdisease/resources/publications/AAG/doh.htm>

### Oral Health Facts

- Tooth decay (dental caries) is the most common chronic disease of childhood.
- Only 1 in 3 of all U.S. schoolchildren and only 1 in 5 of children in families with low incomes have received dental sealants.
- In the United States, 53 million children and adults have untreated tooth decay in their permanent teeth. Much of this problem could have been prevented by greater use of fluoride and timely application of dental sealants on chewing surfaces of back teeth.
- African American and Mexican American adults have twice the amount of untreated decay as non-Hispanic whites.

## 8: Physical Activity

Physical activity is a preventive factor for many adverse health conditions, such as heart disease, stroke, high blood cholesterol, depression, and bone and joint disease. Changes in community design can encourage increased physical activity.



University of Missouri Extension, <http://extension.missouri.edu/p/N388>

### Walking Toward a Healthier You

There are countless physical activities out there, but walking has the lowest dropout rate of them all! It's the simplest positive change you can make to effectively improve your heart health.

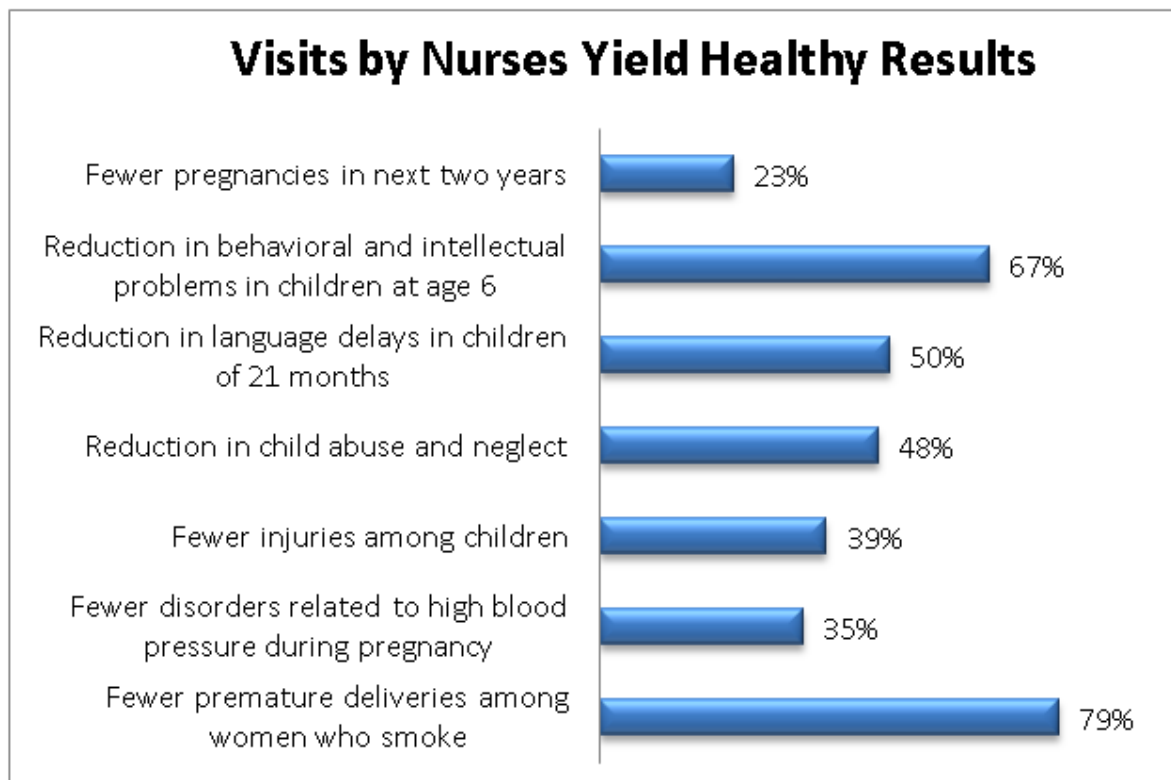
Research has shown that the benefits of walking and moderate physical activity for at least 30 minutes a day can help you:

- Reduce the risk of coronary heart disease
- Improve blood pressure and blood sugar levels
- Improve blood lipid profile
- Maintain body weight and lower the risk of obesity
- Enhance mental well being
- Reduce the risk of osteoporosis
- Reduce the risk of breast and colon cancer
- Reduce the risk of non-insulin dependent (type 2) diabetes

(American Heart Association, Start Walking Now! Program <http://www.startwalkingnow.org/home.jsp>)

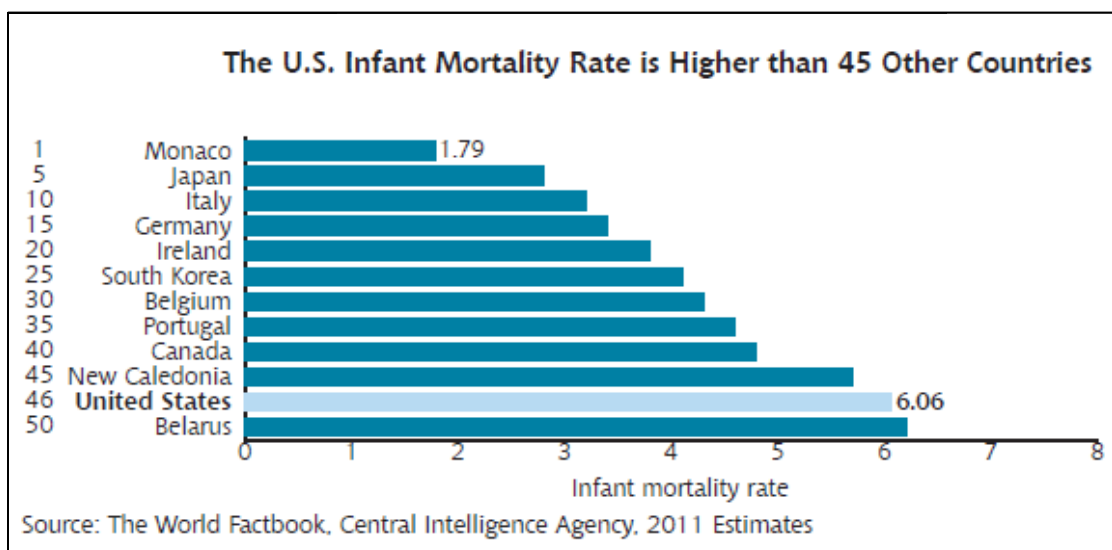
## 9: Reproductive and Sexual Health

Home visits by trained nurses can help improve the long-term health of both mothers and babies, according to the Nurse Family Partnership. Research shows:



Sources: *Pediatrics*, *American Journal of Obstetrics and Gynecology*, *The Journal of the American Medical Association*

Reproductive and sexual health includes the factors that affect the physical, emotional, mental, and social well-being related to reproduction and sexuality across the life span. Reproductive and sexual health is a core component of individual and community public health. Unintended pregnancies and sexually transmitted diseases, including HIV infections, result in tremendous health and economic consequences for individuals and society.







## 10: Tobacco Use and Exposure

Tobacco continues to be a devastating health and economic burden on Wisconsin. Each year, 8,000 people in Wisconsin die from tobacco-related illnesses. Tobacco use is the single most preventable cause of death and disease in the U.S. Every day, people across Wisconsin suffer from the effects of tobacco, and the effects of this deadly addiction are felt throughout Wisconsin communities and by Wisconsin families. Tobacco use in Wisconsin costs more than \$2.2 billion annually in direct health care costs and \$1.6 billion in lost productivity.

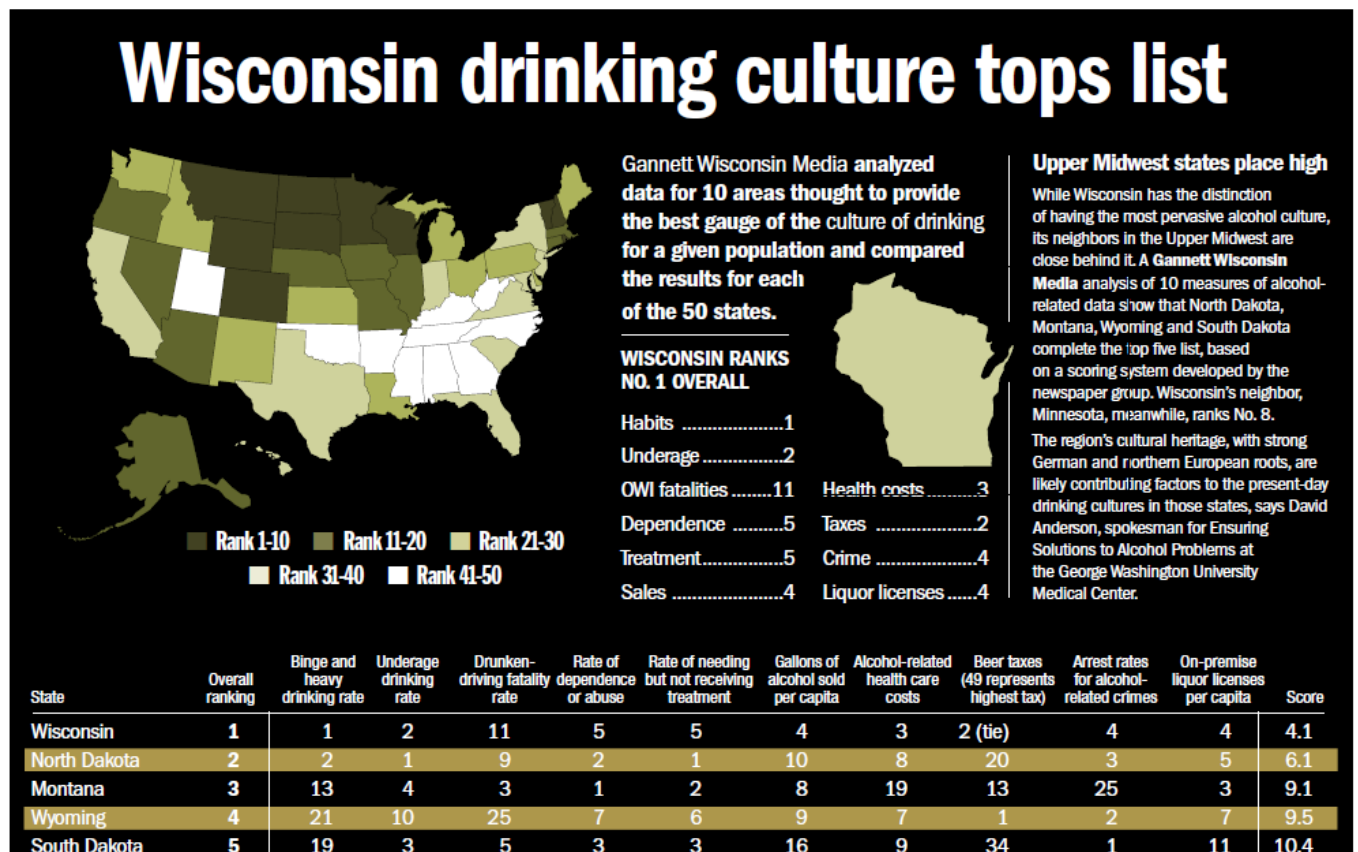
## 11: Alcohol and Other Drug Use

Alcohol-related deaths are the fourth leading cause of death in Wisconsin. While most people in Wisconsin drink responsibly, safely and legally, Wisconsin ranks at or near the top among states in heavy alcohol drinking. Consequences of alcohol or drug abuse include motor vehicle and other injuries; fetal alcohol spectrum disorder and other childhood disorders; alcohol and drug-dependence; liver, brain, heart and other diseases; infections; family problems; and both nonviolent and violent crimes.

Sunday, July 6, 2008 ■ www.postcrescent.com

### STATE of DRINKING

The Post-Crescent, Appleton-Fox Cities, Wis. ■ A-1



## 12: Injury and Violence

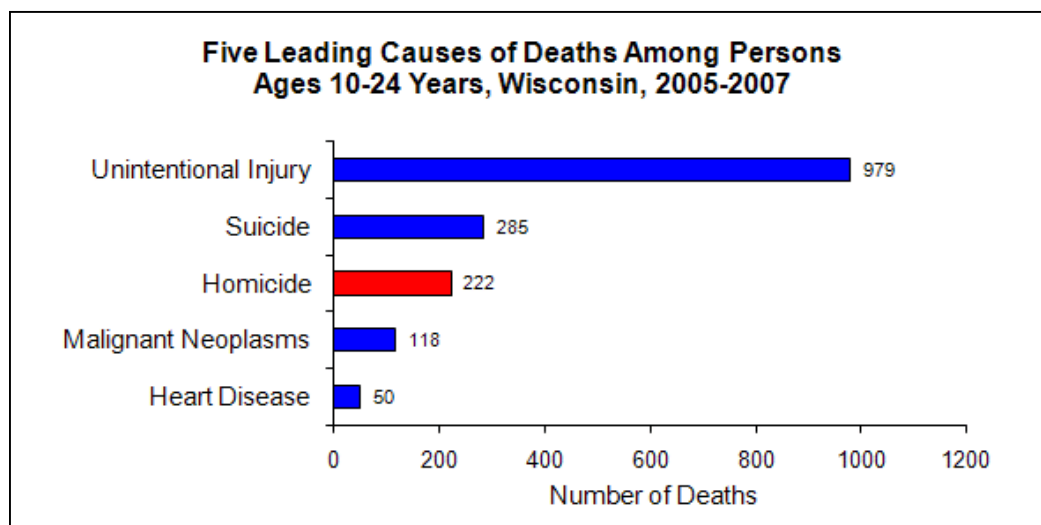
Injury and violence encompasses a broad array of topics.

Unintentional injuries are often referred to as accidents despite being highly preventable.

Examples include falls, drowning, motor vehicle crashes, suffocation and poisoning.

Intentional injuries include those that were purposely inflicted, with

the intent to injure or kill someone (including self). *Content source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention*



Intentional injuries often involve a violent act. Examples include homicide, child maltreatment, sexual assault, bullying and suicide.

Injuries are the leading cause of death among Wisconsin people age 1—44 years and are a significant cause of morbidity and mortality at all ages. Though many of these deaths due to injury are unintentional, the majority are also preventable. Injuries and violence are not discriminatory; they occur in all ages, races, and socioeconomic classes.

### Local assessment findings

These findings demonstrate that progress has been made in several areas including, but not limited to, childhood lead prevention, physical activity, teen births and tobacco use. Significant local health findings, which require attention and continue to present unique challenges, include sexually transmitted diseases, air quality, potential water quality issues due to the county's karst geology, obesity, suicide and limited access to dental services. Key findings for each focus area are summarized at the conclusion of each section of data for the reader's quick reference.

Best of health to you from the Door County Community Health Needs Assessment Team,

Rhonda Kolberg, RN, BSN, MS, Director/Health Officer

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Elizabeth Farley, BS, AmeriCorps Member, Wisconsin HealthCorps

## DEMOGRAPHIC AND ECONOMIC PROFILE

### DEMOGRAPHIC PROFILE

#### Population

- The U.S. Census Bureau estimated Door County's 2009 population to be 27,815.
- Door County's population decreased 0.5% between the 2000 U.S. Census and the 2009 population estimate. In comparison, the population of the State of Wisconsin grew by 5.4%.

#### Age

A higher percentage of Door County residents are 65 years of age or older compared to 2008 state and national statistics. Likewise, Door County has fewer individuals under the age of 18 years, as demonstrated in the following table.

**Percentage of Population According to Age, 2008**

	<b>Door County</b>	<b>Wisconsin</b>	<b>United States</b>
<b>Under 5 years</b>	4.5%	6.4%	6.9%
<b>Under 18 years</b>	18.3%	23.4%	24.3%
<b>65 years or older</b>	21.3%	13.3%	12.8%

(Source: U.S. Census Bureau, 2008)

Door County's median age is 46.2 years compared to Wisconsin's median age of 36.0 years and the national median age of 36.4 years.

(Source: Bureau of Health Information and Policy; Division of Public Health, Wisconsin Department of Health Services and American Community Survey, U.S. Census Bureau, 2008)

#### Race and Ethnicity

Door County is a predominantly white, non-Hispanic (97.7%) community.

- It is important to know the cultural composition of the county because some racial and ethnic groups have higher rates of certain diseases than other groups. For example, Native Americans are at an increased risk for diabetes. Also, hypertension appears to be more prevalent in the African American population.
- In Door County there has been a decrease in the American Indian/Alaska Native population and an increase in the Hispanic/Latino, Asian, and African American populations since 1995.

### Percentage of Population According to Race, 2008

	Door County	Wisconsin	United States
White	97.7%	89.7%	79.8%
Black	0.4%	6.1%	12.8%
American Indian and Alaska Native	0.7%	1.0%	1.0%
Asian	0.5%	2.0%	4.5%
Two or more races	0.7%	1.2%	1.7%

(Source: U.S. Census Bureau, 2008)

### Percentage of Population According to Hispanic/Latino Ethnicity, 2008

	Door County	Wisconsin	United States
White, non Hispanic	96.4%	85.1%	65.6%
Hispanic or Latino Origin	1.4%	5.1%	15.4%

(Source: U.S. Census Bureau, 2008)

### Door County Ethnicity Estimates, 1995-2008

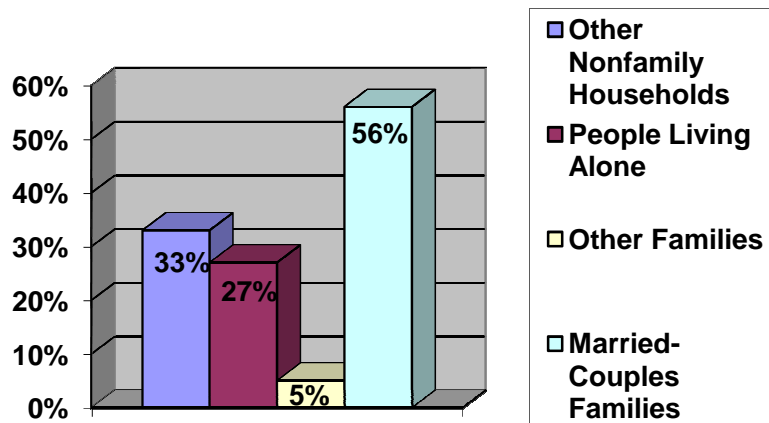
	1995	2000	2008
White	98.2%	97.8%	97.7%
Black	0.2%	0.2%	0.4%
American Indian and Alaska Native	1.0%	0.7%	0.7%
Asian	0.3%	0.3%	0.5%
Hispanic or Latino	1.0%	1.0%	1.4%

(Source: U.S. Census Bureau, 2000 and 2008, AIM)

### Household Characteristics

According to the American Community Survey conducted by the U.S. Census Bureau, there were 13,697 households in Door County in 2007. The majority of these households were comprised of married-couple families.

### The Types of Households in Door County



(Source: American Community Survey, 2006-2007, U.S. Census Bureau)

### Population Density

The 2008 Wisconsin Public Health Profile reports that Door County is less densely populated than most counties in the state. Door County ranked 31<sup>st</sup> out of 72 counties in terms of population density with an average of 61 people per square mile. In 2008, the State of Wisconsin had 104 persons per square mile, and the U.S. Census indicates in 2000, nationally, there were 79.6 persons per square mile.



## **ECONOMIC PROFILE**

### **Employers, Industry, and Wages**

With a history of shipbuilding, Door County has developed into a county with a variety of manufacturing and service industries. The county's larger employers are listed below.

<b><u>LARGEST EMPLOYERS</u></b>	<b><u>TYPE OF BUSINESS</u></b>	<b><u># OF EMPLOYEES</u></b>
Bay Shipbuilding	Ship Repair & Construction	710
Door County Memorial Hospital	Health Care	619
Palmer Johnson	Luxury Yacht Builder	340
Baylake Bank	Commercial Banking	340
County of Door	County Government	329
Hatco Corporation	Commercial Kitchen Equipment	314
Marine Travelift/ExacTech	Boat & Industrial Hoists	237
School District of Sturgeon Bay	Elementary & Secondary Schools	213
Southern Door Public School	Elementary & Secondary Schools	174
NEW Industries	Custom Machining	130
Therma-Tron-X	Industrial Finishing Systems	123
Door County YMCA	Civic & Social Organization	115
Wal-Mart Associates	Discount Department Store	100
WireTech Fabricators	Wire Products	100
Portside Builders	Construction	86

(Source: Door County Economic Development Corporation)

\*As of May 2009

From 2005 to 2007, for the employed population 16 years and older, the leading industries in Door County were Manufacturing at 17% and Educational Services, Healthcare and Social Assistance at 16%. Food service and drinking businesses comprise Door County's largest industry. However, employers within this industry are not among the county's largest employers because these establishments, while numerous, are smaller employers.

### **Labor Force**

Labor force is defined as the number of residents aged 16 and older that are either working or looking for work. People who are not in the labor force do not work for a variety of reasons. These reasons include: retirement, school attendance, inability to perform available work, physical incapacity, or no work is available to them.

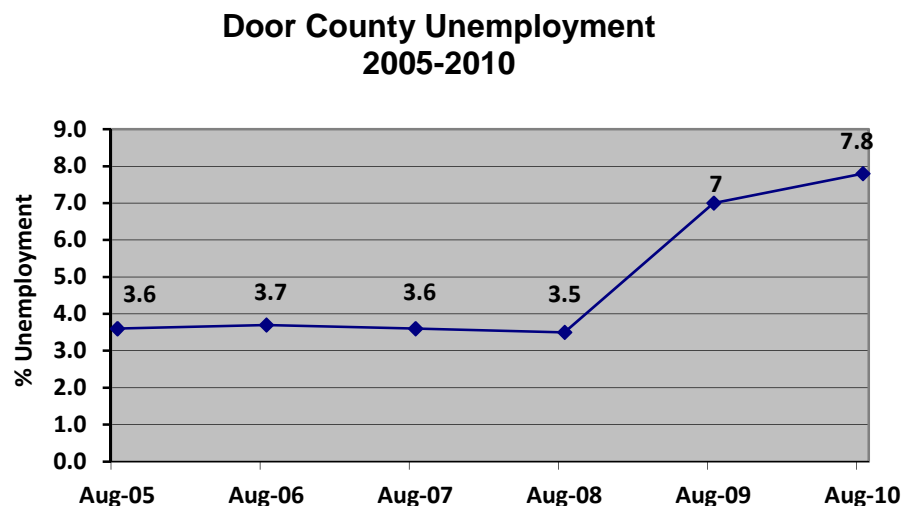
Door County had approximately 18,372 people in the labor force (eligible to work) in August 2010 (down from 19,062 in August 2009). Actual employment was 16,945 in August 2010 (down from 17,730 in August 2009).

In terms of its labor force, Door County is among one of the most seasonal counties in Wisconsin. Unemployment rates can become quite high in the winter months.

## **Unemployment**

The Door County employment rate has been affected by the recent economic downturn. Reports from the Department of Workforce Development indicate that Door County unemployment rates rose from 7.0% in August 2009 to 7.8% in August 2010. However, the local unemployment rate did not exceed the state unemployment rate of 7.9% in August 2010. During this same period, the national unemployment rate of 9.6% was higher than our local rate.

The following chart reflects Door County's percentage of unemployment in August of each year from 2005 through 2010.



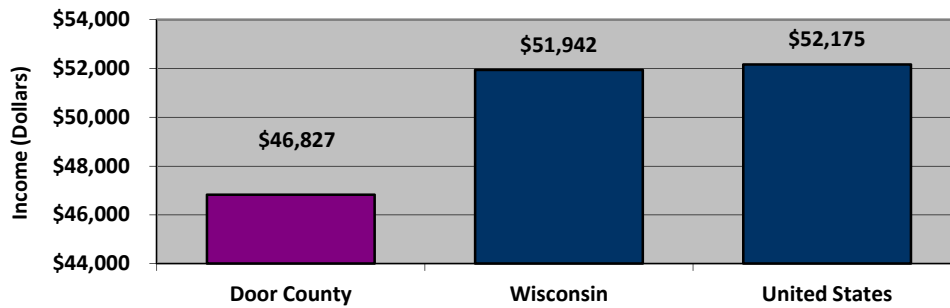
(Source: U.S. Department of Labor, Bureau of Labor Statistics)

## **Income**

The average annual wage for Door County workers in 2007 was \$27,124 while the state average was \$38,070. It is interesting to note that Door County's annual average wage increased to \$27,783 in 2008 and then decreased to \$27,330 in 2009 – which correlates with unemployment rates. (Source: Wisconsin Department of Workforce Development)

In 2008, Door County's estimated median household income (\$46,827) was reported to be lower than that of Wisconsin (\$51,942) and the United States (\$52,175).

### Median Household Income, 2008

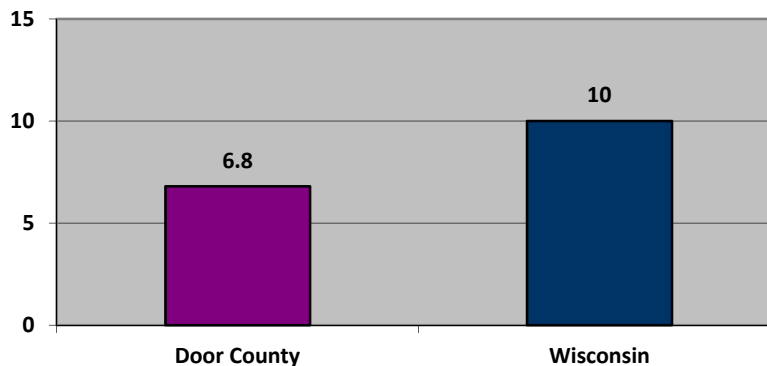


(Source: U.S. Census Bureau)

### Poverty

Between 2006 and 2008, 6.8% of individuals residing in Door County lived below the poverty level. During this same time period, 10.0% of individuals residing in Wisconsin lived below the poverty level. A number of state and county programs establish eligibility for services at 185% of poverty, such as Medicaid/BadgerCare and WIC.

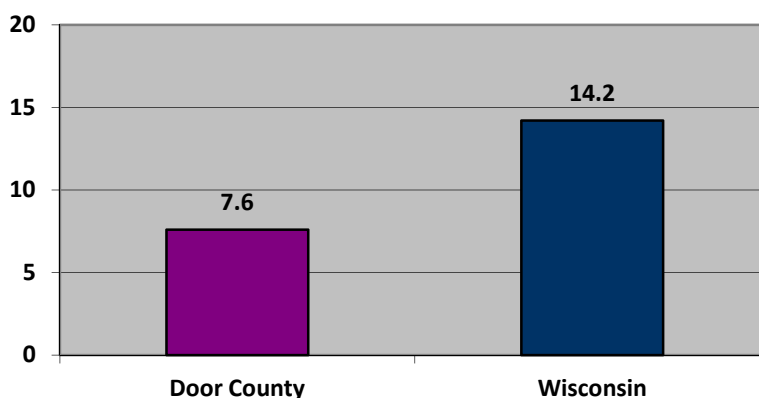
### Percentage of Individuals below the Poverty Level, 2006-2008



(Source: U.S. Census Bureau)

Seven point six percent (7.6%) of Door County children experienced poverty between 2006 and 2008. Although, local childhood poverty rates continue to be lower than the average Wisconsin level of 14.2% in 2007.

### Percentage of Children under Age 18 Below the Poverty Level, 2006-2008



(Source: U.S. Census Bureau)

### Homeownership

In 2000, 79.4% of Door County residents owned homes. The State of Wisconsin had a 68.4% homeownership rate, which was higher than the nation's rate of 66.2%

Between 2006 and 2008, the owner-occupied rate in Door County dropped to 75.4% and nationwide it increased to 67.1%.

### Housing Data

	Door County	Wisconsin	United States
<b>Housing Units</b> (2006-2008)	22,355	2,569,430	129,065,264
<b>Home Ownership Rate</b> (2000)	79.4%	68.4%	66.2%
<b>Median Value of owner-occupied housing units</b> (2000)	\$120,800	\$112,200	\$119,600

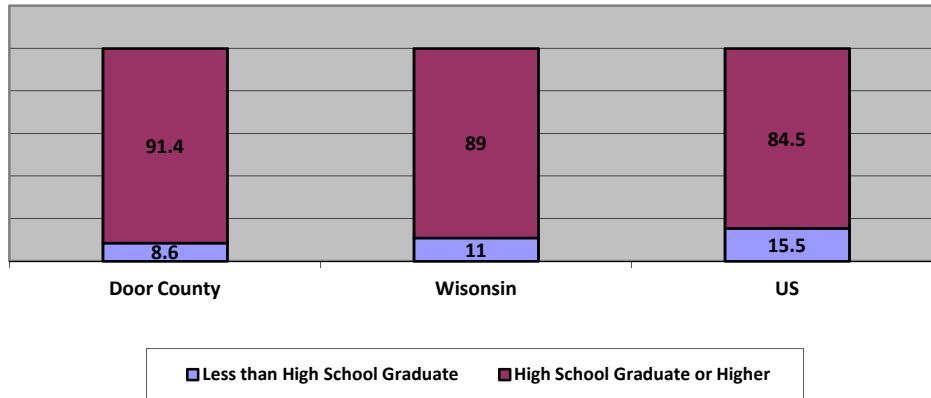
(Source: U.S. Census Bureau)

### Education

The percentage of adults who have not obtained a high school diploma in Door County was 8.6% between 2006 and 2008. This percentage is lower than both the state (11%) and the national (15.5%) levels.

### Percentage of High School Graduates, 2006-2008

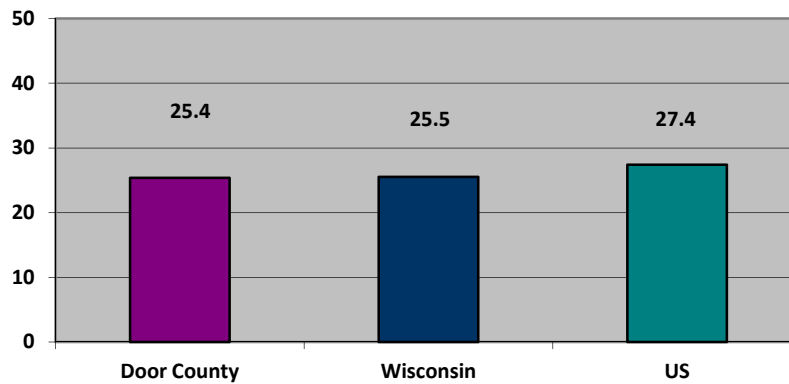
	Door County	Wisconsin	United States
<b>Graduation Rate</b>	91.4%	89.0%	84.5%



(Source: American Community Survey, 2006-2008, U.S. Census Bureau)

The percentage of the adults residing in Door County with a bachelor's degree or higher is about the same as the state level (25.5%) and lower than the nation level (27.4%).

### Percentage of Adults with Bachelor's Degree or Higher, 2010



(Source: U.S. Census Bureau, 2010)



## KEY FINDINGS

- Door County population was estimated at 27,815 in 2009.
- An estimated population decline of 0.5% occurred between 2000 and 2009.
- Percentage of persons aged 65 years or older in Door County exceeds state and national averages.
- Door County residents are predominantly white, with a decrease in the American Indian/Alaska Native population and an increase in the Hispanic/Latino, Asian, and African American population since 1995.
- Door County is considered a rural county, with a less dense population than most counties in the state.
- A variety of manufacturing and service industries have developed in Door County.
- Local percentage of people/children living in poverty is lower than state and national levels.
- The Door County homeownership rate exceeds state and national rates.

## SECTION 1: ADEQUATE, APPROPRIATE, AND SAFE FOOD AND NUTRITION

### Focus Area Definition

***Adequate, appropriate, and safe food and nutrition is an individual's ability to access and consume adequate amounts of nutritious foods throughout his or her life. Proper nutrition should begin with breastfeeding to promote normal growth and development of children and carry through life to support physical, emotional, and social well-being. Appropriate nutrition can reduce the risk of chronic diseases that are causes for public health concern. Chronic health conditions that may be positively affected by a healthy diet include: obesity, type 2 diabetes, cancer, heart disease, and stroke. A proper diet should provide sufficient nutrients while consuming minimal calories. Food safety should include appropriate handling, preparation, serving, and storage practices. Individuals and families, in addition to being aware of healthy nutrition practices, should have access to healthy foods throughout the year.***

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

Adequate, appropriate, and safe food and nutrition can positively affect outcomes related to chronic illnesses such as cancer, diabetes, heart disease, cerebrovascular disease (stroke), and obesity. Proper nutrition can also benefit the healing process, resistance to infection, and general well-being.

The following focus areas are examined in this section:

- ☐ Overweight & Obesity
- ☐ Fruit & Vegetable Intake
- ☐ Cholesterol Screenings
- ☐ Food Security
- ☐ Free or Reduced Lunch
- ☐ Door County WIC
- ☐ Breastfeeding

### **Overweight & Obesity**

Overweight and obesity can contribute to many health problems including, but not limited to: high blood pressure, diabetes, coronary heart disease, stroke, and sleep apnea. Overweight is classified as a population with a body mass index (BMI) greater than or equal to 25 kilograms per meter squared. Obesity signifies a population with a BMI of greater than or equal to 30 kilograms per meter squared.

The American Cancer Society in its report, *How Do You Measure Up?*, discusses the increasing incidence of obesity among people of all ages in the United States in recent

years. According to the *Wisconsin County Health Rankings 2008—Full Report* from the University of Wisconsin Population Health Institute, the average percentage of obesity in Wisconsin was 24.1%. Data used in this report was from the Behavioral Risk Factor Surveillance System (BRFSS) and covers the years 2001 through 2007.

The *Wisconsin County Health Rankings 2008—Full Report* states that the percentage of obese individuals in Door County was 21.2%. Door County's percentage of overweight individuals among the polled individuals in this report was 58%. Regarding obesity, Door County ranks number 12 out of 72 counties in Wisconsin.

Individuals who frequently dine at restaurants or fast food chains may be at an increased risk for overweight or obesity. Door County has a variety of restaurants within its borders. According to the Door County Dining Guide, there are at least 144 restaurants within the county limits. Door County only has a limited number of fast food restaurant chains.

**“Childhood obesity is also of concern. Someone can begin to be at risk for being overweight as early as two years old. It is important for proper feeding practices to begin early in order to decrease the chances of becoming overweight and/or obese. The percentage of overweight and obese children participating in WIC in Door County has decreased from 35.7% in 2007 to 29.8% in 2010.”**

**–Teresa Mertens, RD, CD, CLS,  
Door County Women, Infants, and  
Children’s Program (WIC)  
Director/Nutritionist**

## **Fruit & Vegetable Intake**

Research reveals the benefits of eating an adequate amount of fruits and vegetables per day. An adequate amount of fruits and vegetables can help prevent birth defects, immune deficiencies, cancers, heart disease, diabetes, stroke, and other chronic health issues.

The Centers for Disease Control and Prevention provides the following information regarding average fruit and vegetable consumption in the United States compared to Wisconsin. Data is taken from the years 2005 and 2007 and is displayed according to median percent.

### **Average Fruit and Vegetable Consumption per Day (by median percentage)**

	<i>Never or less than 1 per day</i>	<i>1 or 2 times a day</i>	<i>3 or 4 times a day</i>	<i>5+ times a day</i>
<i>Nationwide 2005</i>	4.4%	35.6%	36.2%	23.8%
<i>Nationwide 2007</i>	4.4%	35.1%	36.0%	24.8%
<i>Wisconsin 2005</i>	4.9%	38.5%	34.0%	22.6%
<i>Wisconsin 2007</i>	4.2%	36.5%	34.7%	24.6%

(Source: Centers for Disease Control and Prevention)

Data from the *Wisconsin County Health Rankings 2008-Full Report* states that 77.2% of individuals living in Wisconsin consume less than five fruits and vegetables per day. From this report, data taken from a sample size of 215 individuals in Door County states that 76.4% of county residents consume less than five fruits or vegetables per day. In this category, Door County was ranked number 19 out of 72 counties in Wisconsin.

### **Cholesterol Screenings**

High blood cholesterol can be a risk factor for heart disease and stroke. Heart disease and stroke can especially be of concern if an individual has risk factors in addition to high blood cholesterol. Cholesterol screenings can identify persons at-risk. Further teaching, testing, or intervention can follow to lower blood cholesterol, if necessary.

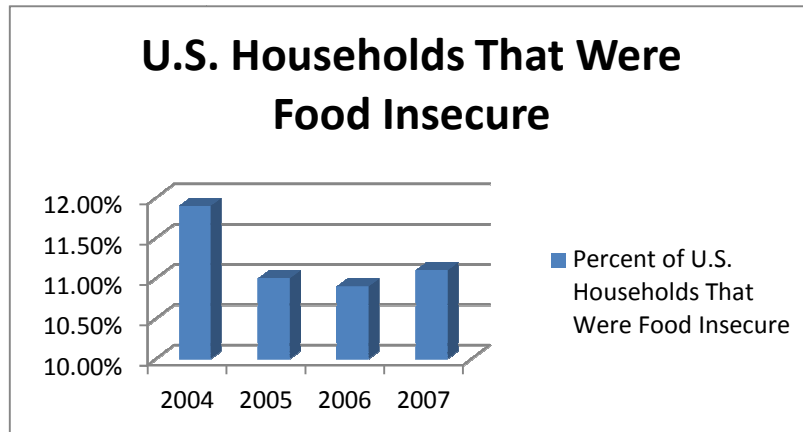
A 2003 Door County Community Health Survey Report completed by Aurora Health Care identified that out of a sample size of 400 telephone interviews, 45% of survey respondents had their cholesterol tested within the year. At that time, 20% of individuals surveyed had their cholesterol assessed between one to two years prior. Fifteen percent (15%) of survey participants claimed they have never had their cholesterol tested.

As an alternate option to seeing a physician for screening, the Door County Public Health Department offers cholesterol screenings twice a year for a minimal charge of thirty dollars. Nutrition education to encourage optimal nutritional benefits is offered at this cholesterol screening.

### **Food Security**

Food security refers to availability of food and access to food. Those who do not have food security may be more at-risk for malnutrition, and subsequently immune deficiencies and increased risk for illness. Food insecurity can result in not only physical consequences, but also in behavioral, social, and psychological difficulties.

The following graph expresses the percent of United States households that were food insecure from the years 2004 through 2007 according to the U.S. Department of Agriculture. (Please note that these statistics are from a general survey.)

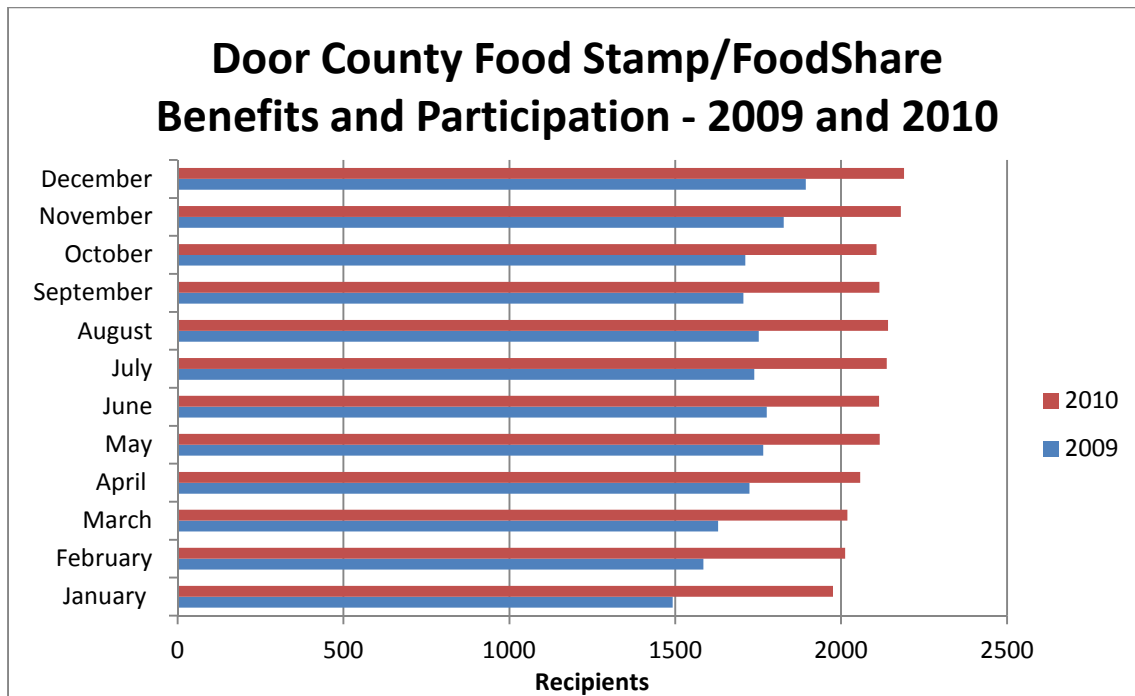


(Source: United States Department of Agriculture)

In a Wisconsin Food Security Project completed in 2005 by the University of Wisconsin-Extension, data regarding food insecurity was collected from Women, Infants, and Children (WIC) participants. (The WIC program is discussed in a section to follow.) This project indicates that in Wisconsin, among WIC participants, food insecurity was 44% compared to 32% overall in Door County. Hunger rate was also assessed in the WIC population. For Wisconsin residents, hunger was 19% compared to 9% overall in Door County.

According to Wisconsin Department of Health Services, FoodShare Wisconsin was created to help people with limited money purchase food that they need to improve nutrition and health. Wisconsin Department of Health Services reports people who may participate in FoodShare can be of any age and: have a low paying job, live on a small income, have lost their job, or are retired or disabled and unable to work. In Door County, FoodShare participation has increased in the last couple years. In 2009, the Wisconsin State Food/Stamp/FoodShare Benefits and Participation Data Recipients data reports that there was a monthly average of 1,716 recipients. In 2010, the monthly average of recipients increased to 2,097. The chart below shows the steady increase of the monthly number of recipients of FoodShare in Door County in 2009 and 2010.





(Source: Wisconsin State Food Stamp/FoodShare Benefits and Participation Data Recipients)

The Lakeshore Community Action Program (CAP) Food Pantry has provided continuous and emergency food assistance for individuals with low or limited income who are residents of Door County. The food pantry is supported by local donations and food drives, the United States Department of Agriculture (USDA) food program, and individuals or organizations making regular contributions. Lakeshore CAP collected data on the number of individuals it assists. Individuals can be assisted once a month in this program. The following table of information from Sandy Soik of Lakeshore CAP shows the number of households that are served, the total people that are served, the new families that are served, and the number of households that declare they have zero income.

Door County - Lakeshore CAP				
YEAR	Number of Households Served	Total People Served	New Families Served	Households Declaring Zero Income
2008	3416	7117	123	159
2009	3617	7671	254	178
2010	3722	7730	246	130

(Source: Sandy Soik, Lakeshore CAP)

Feed My People is an emergency food pantry that has served members of the community. Estella Huff has provided information on the Feed My People program.

The chart below depicts participation in 2008, 2009, and 2010.

Door County - Feed My People				
YEAR	Total People Served	Children Served	Adults Served	Households Served
2008	1548	968	580	779
2009	1951	822	1129	879
2010	1759	664	1095	741

(Source: Estella Huff, Feed My People)

**“In order to acquire this assistance, one must first call Feed My People and provide information including household size. The household is then given a certain number of food items based on its size. Food items are set to last two weeks, but can be stretched to last up to three weeks. Food items include fresh items such as ground beef, chicken, hot dogs, milk, eggs, margarine, and cheese. Participants are allowed to participate up to four times per year. Due to the economic climate, the board has occasionally waived maximum participation limits if the circumstances are warranted.”**

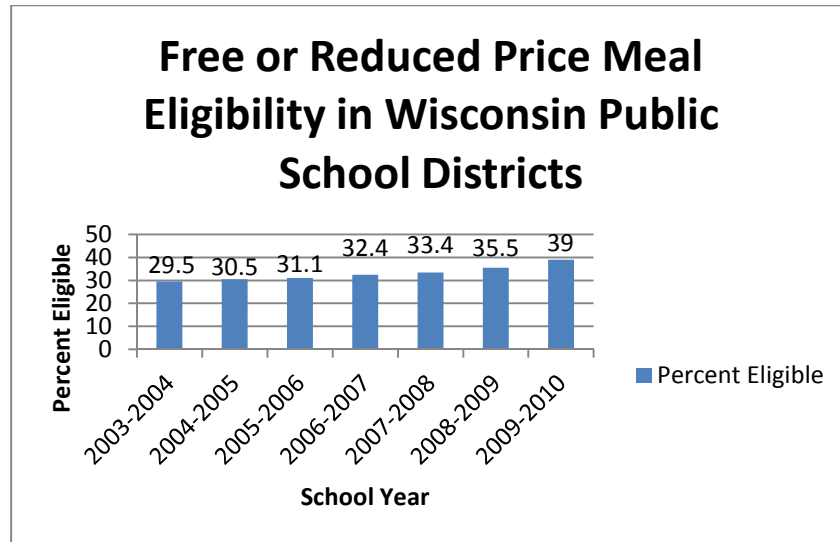
**–Estella Huff, Director of Operations, Feed and Clothe My People & Thrift Store**

There are many other programs in the Door County community that are available to help residents with food security. The SHARE program is a food buying club that helps members save 30-50% on supermarket quality food. The Community Garden is another available resource for people in the city who do not have space or a good location at their residence for a garden. With a community garden, a citizen who grows food can consume their own healthy produce or donate the food to other members of the community. Feed My People, the SHARE program, and The Community Garden are only a few of many programs available for Door County residents.

According to Teresa Mertens, RD, CD, CLS, Door County WIC Director/Nutritionist, there has been a history of interagency collaboration in Door County to serve the nutritional needs of residents of the community. Mertens says that despite interagency collaboration and numerous resources, many resources are located in Sturgeon Bay. Mertens says this may limit access to needy residents to the far north or south of the county. Mertens also suggests she has heard reports of food being more costly in a seasonal, peninsula, and tourist based community.

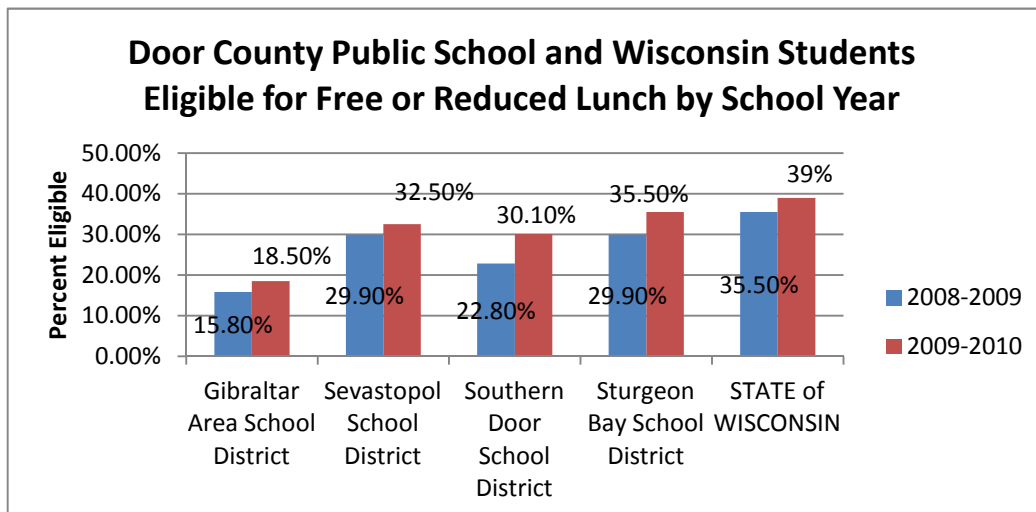
### **Free or Reduced Lunch**

Data was compiled by the Wisconsin Department of Public Instruction expressing the percentage of students eligible for free or reduced price meals at public school districts. The following chart depicts the rates of eligibility for free or reduced lunch statewide.



(Source: Wisconsin Department of Public Instruction)

Wisconsin Department of Public Instruction data also included eligibility for free or reduced lunch by county in the 2008-2009 and 2009-2010 school years. During these school years, Door County's percentage of students eligible for free or reduced lunch increased as did the percentage eligible in the State of Wisconsin. The chart below shows the assessed Door County school districts in the 2008-2009 and 2009-2010 school years compared to the State of Wisconsin.



(Source: Wisconsin Department of Public Instruction)

## WIC Program

The Women, Infants, and Children (WIC) Program is a nationwide program that provides nutrition education and supplemental food vouchers to low-income pregnant or breastfeeding women, infants, and children under the age of five. A WIC food package includes specific foods like fruits, vegetables, whole grains, cereal, and milk. A WIC certification includes a health screening and age appropriate nutrition education.

Families are offered tips for meal planning, recipes, and shopping on a budget. WIC also refers families to other community resources, such as immunizations, health care, dentists, and other assistance programs. WIC is a strong supporter of breastfeeding as the optimal start to an infant's life with the interest of providing benefits to both mother and infant.

Annual WIC participation includes the total number of different individuals that participate in the WIC program during a year. The following table dictates the increases in national, State of Wisconsin, and Door County annual WIC participation from 2006 through 2009. In 2010, the annual WIC participation in Door County again increased to 859 participants.

**Annual WIC Participation, 2006-2009**

	<b>National</b>	<b>State of Wisconsin</b>	<b>Door County</b>
<b>2010</b>	9,175,000	205,988	859
<b>2009</b>	9,122,000	203,855	834
<b>2008</b>	8,705,000	203,790	803
<b>2007</b>	8,285,000	196,724	724
<b>2006</b>	8,088,000	191,615	689

(Source: Wisconsin Women, Infants, and Children Program)

The National WIC Association (NWA) reports there are many benefits from WIC participation. The NWA claims studies show pregnant women participating in WIC seek earlier prenatal care, have fewer premature births, have fewer low birth-weight babies, experience fewer fetal and infant deaths, and consume more key nutrients. NWA says WIC assists in normal growth in infants and children, reduces anemia, increases immunization rates, improves access to community services, and improves diets.

## **Breastfeeding**

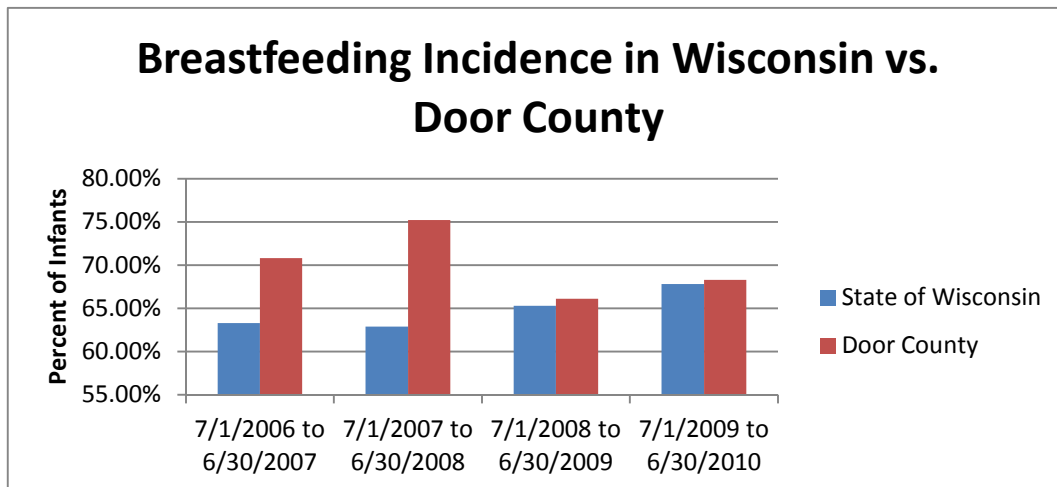
Breastfeeding is an important component of a healthy and nutritional start for every infant. It also provides health, emotional, and economic benefits to both the infant and the mother. Long-term breastfeeding (six months or longer) can be especially instrumental in attaining these benefits.

The National WIC Association (NWA) reports that breastfeeding helps bonding for mother and infant. The NWA also says breast milk contains all of the nutrients and antibodies needed to grow, develop, and stay away from infection. Other research shows that benefits to an infant may include decreasing chances of developing disorders, such as becoming overweight, diabetes, multiple sclerosis, heart disease, or cancer later in life. Also, mothers may lower their risk of developing osteoporosis or developing certain cancers.

The Wisconsin Women, Infants, and Children (WIC) program, which strongly supports breastfeeding, is able to tabulate reports showing breastfeeding incidence and duration. The following tables and charts demonstrate total breastfeeding incidence, breastfeeding duration, and the percentage of exclusively breastfed infants in the

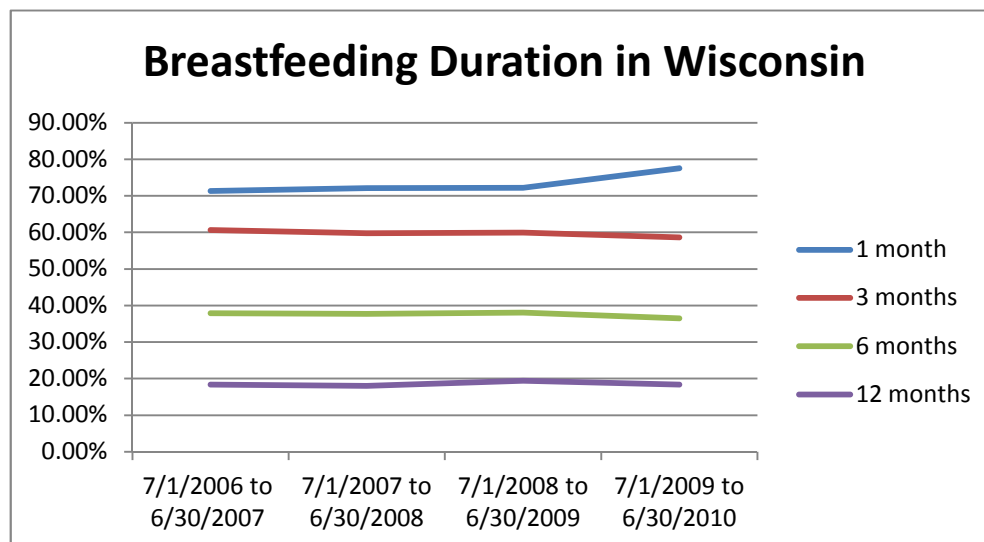
Wisconsin WIC program compared to total incidence in Door County WIC from July 7, 2006 to June 30, 2010. (Some breastfeeding data for Door County was not calculated.)

As shown below, breastfeeding incidence in Wisconsin has increased overall in the last few years. Door County experienced a significant decrease from 2007-2008 to 2008-2009, but has again started to increase in breastfeeding incidence.



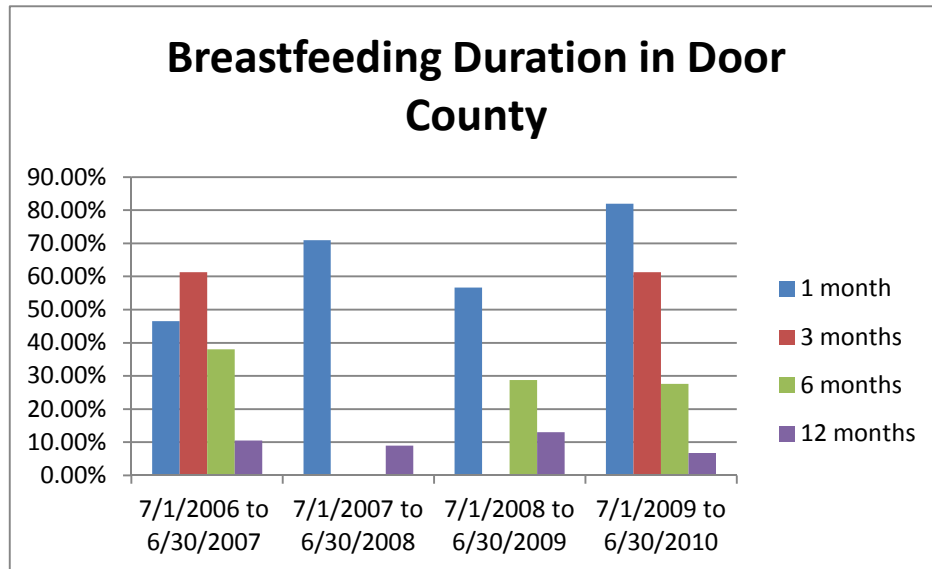
(Source: Wisconsin Women, Infants, and Children Program)

The following data shows that breastfeeding for one month has continued to be on the rise in Wisconsin. However, extended breastfeeding duration has decreased in more instances than it has increased.



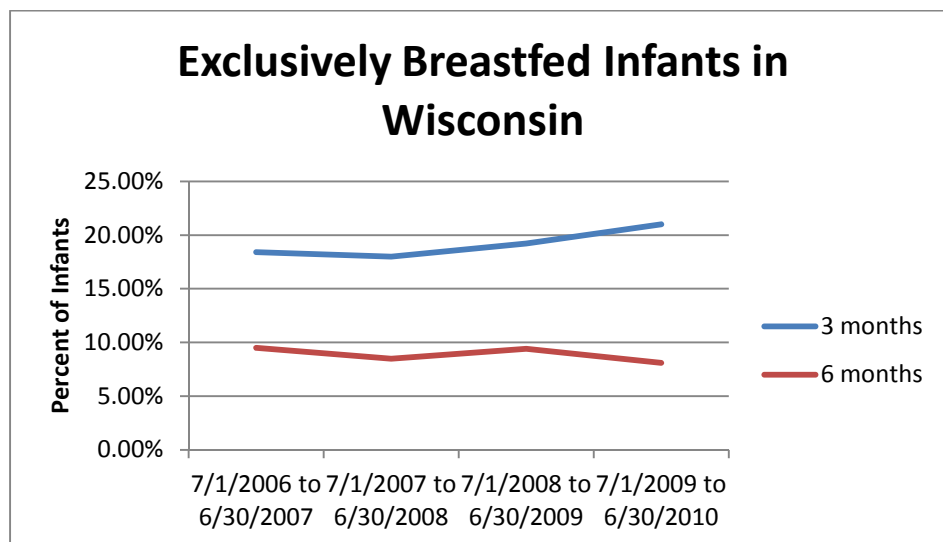
(Source: Wisconsin Women, Infants, and Children Program)

Door County data for breastfeeding duration is more limited than Wisconsin data. From the data that exists, there have been more decreases in breastfeeding duration than there have been increases. (Please note: Blank spaces in the following graph are due to less than 50 results being available for analysis.)



(Source: Wisconsin Women, Infants, and Children Program)

As shown in the chart below, in Wisconsin, the percentage of exclusively breastfed infants for three months has increased. In comparison, exclusive breastfeeding for six months has primarily decreased.



(Source: Wisconsin Women, Infants, and Children Program)

Data for the percentage of exclusively breastfed infants at three and six months in Door County is extremely limited compared to Wisconsin data. The data that is available shows a decrease in exclusive breastfeeding for three months from 37.9% in 2006-2007 to 32.7% in 2009-2010. The only data available for exclusive breastfeeding for six months in Door County is 17.1% from July 1, 2006 to June 30, 2007.

The Door County Public Health Department has recently been working with other agencies to help promote and support breastfeeding in the community. Important steps have been taken by the health department as well as other agencies to make some areas of the community more breastfeeding friendly. In early 2011, a Breastfeeding

Peer Counselor was hired by the Door County WIC Program to help support breastfeeding moms and improve breastfeeding rates in the area.

<b>KEY FINDINGS</b>
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- A report shows 21.2% of polled individuals in Door County report that they are obese and 58% report that they are overweight.
- Door County has many restaurants within its borders and a limited number of fast food chains.
- A report says, from a sample size of 215 individuals in Door County, 76.4% consume less than five fruits or vegetables per day.
- In Door County, 15% of polled individuals never had their cholesterol screened.
- According to the WIC program, in Wisconsin, food security and hunger rates are higher than rates of Door County.
- In Door County, average monthly FoodShare participation has increased from 1,716 in 2009 to 2,097 in 2010.
- Lakeshore CAP has served more households and people every year from 2008 to 2010.
- There are many agencies willing to collaborate and many programs available for food assistance in Door County.
- In the last few years, the percentage of students in Door County eligible for free or reduced lunch has increased.
- Annual WIC participation has increased in the last few years in the nation, in the state, and also in Door County.
- Breastfeeding duration and exclusive breastfeeding in Door County has experienced decreased rates over the last few years.

## SECTION 2: CHRONIC DISEASE PREVENTION AND MANAGEMENT

### Focus Area Definition

***Chronic disease prevention and management means preventing, delaying, detecting, and controlling chronic diseases and conditions throughout the life course. Chronic diseases are non-communicable, prolonged in duration, do not resolve spontaneously, are rarely cured completely, and often result in disability later in life.***

***Chronic disease prevention includes strategies to promote and improve the health of individuals and communities by focusing on four common modifiable risk behaviors. These modifiable risk behaviors include: tobacco use, insufficient physical activity, poor eating habits, and excessive alcohol use. Promoting community-based policies, such as indoor air regulations, menu labeling, advertising restrictions, pricing strategies, and changes to the built environment, create environments that promote and protect health.***

***Chronic disease management includes strategies to enhance quality of care through collaborative practice models and evidence-based practice guidelines. It empowers patients through evidence-based, self-management education, promoting self-efficacy to maintain and improve function and independence, peer support, and resources.***

***Examples of key chronic diseases and conditions include: heart disease, cerebrovascular disease (stroke), cancer, diabetes, arthritis, asthma, and obesity.***

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

The profile of diseases contributing most heavily to death, illness, and disability among Americans changed dramatically during the last century. Today, chronic diseases such as cardiovascular disease (primarily heart disease and stroke), cancer, and diabetes are among the most prevalent, costly, and preventable of all health problems. (Source: CDC)

Research has proven that in order to improve the health of the community we need to focus on modifying the four common modifiable risk behaviors to control chronic disease. *The modifiable risk factors are tobacco use, insufficient physical activity, poor eating habits, and excessive alcohol use.*

The following focus areas are examined in this section:

- ☐ Heart Disease
- ☐ Cerebrovascular Disease (Stroke)
- ☐ Cancer
- ☐ Diabetes
- ☐ Asthma



The following chart provides information regarding cause of death and death rates associated with chronic illnesses.

**Deaths by Underlying Cause and Rate, 2008\***

	<b>Total Door County Deaths</b>	<b>County Rate</b>	<b>State Rate</b>
<b>Heart Disease</b>	80	269	199
<b>Cancer</b>	76	256	196
<b>Cerebrovascular Disease</b>	18	**	45
<b>Lower Respiratory Disease</b>	18	**	44
<b>Pneumonia/Influenza</b>	5	**	20
<b>Accidents</b>	17	**	43
<b>Diabetes</b>	4	**	20
<b>Infection/Parasitic Disease</b>	8	**	14
<b>Suicide</b>	5	**	13

\*Rate is per 100,000 population

\*\*Number insufficient to determine rate

(Source: Wisconsin Department of Health Services, Public Health Profiles, 2008)

## **Heart Disease**

Ischemic or coronary heart disease occurs because the heart is not receiving enough blood from the rest of the body to continue its normal function. There are multiple causes of coronary heart disease including, but not limited to, plaque build up in arteries and spasms of the arteries. Ramifications of heart disease can be long-term trouble with the body's circulation, as well as lead to or coincide with other chronic illnesses.

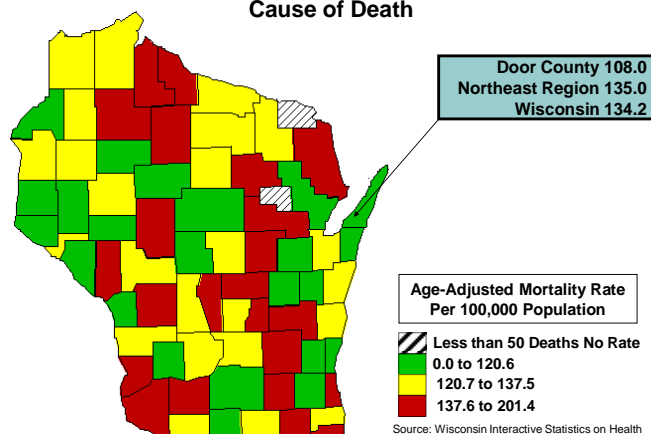
*Morbidity:* There were 128 hospitalizations due to coronary heart disease in Door County in 2008, with the rate being 4.3 per 1,000 population. The rate of hospitalization for the State of Wisconsin was 4.6 per 1,000 population in 2008.

(Source: Wisconsin Department of Health Services, *Public Health Profiles, 2008*)

*Mortality:* Door County's age-adjusted death rate for heart disease from 2002-2006 was 136.3 per 100,000 population. This compares to the northeast region at 135.0 and Wisconsin at 134.2 per 100,000 population. Ischemic heart disease accounted for 244 deaths in Door County from 2002-2006. (Source: Wisconsin Department of Health Services – WISH)

The image below depicts Door County's age-adjusted mortality rate for ischemic/coronary heart disease compared to other counties in Wisconsin. As shown, Door County's mortality rate is lower than that of the northeast region and that of the State of Wisconsin.

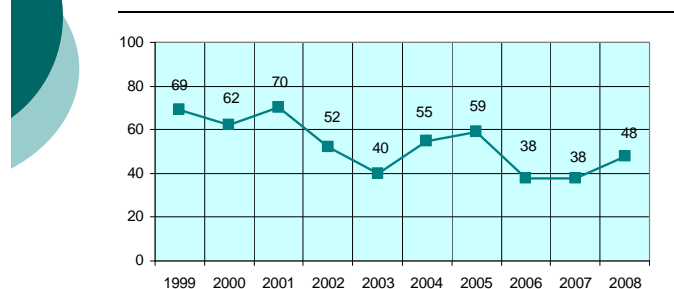
### 2002-2006 Age Adjusted Mortality Rate with Ischemic/Coronary Heart Disease Listed as the Primary Cause of Death



(Source: Wisconsin Interactive Statistics on Health, (WISH), Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health Services. Cause of Death – Ischemic/Coronary Heart Disease includes the following: Hypertensive Heart Disease ICD-10 Code I11, ICD-9 Codes 402; Acute Myocardial Infarction ICD-10 Codes I21-I22, ICD-9 Code 410; Other Acute Ischemic Heart Disease ICD-10 Code I24, ICD-9 Code 411; Atherosclerotic Cardiovascular Disease, So Described ICD-10 Code I25.0, ICD-9 Code 429.2; All Other Forms of Chronic Ischemic Heart Disease ICD-10 Codes I20, I25.1, I25.9, ICD-9 Codes 412-414.)

The following slide shows the number of deaths from 1999 through 2008 in Door County due to ischemic or coronary heart disease. Overall, the number of deaths from heart disease in Door County has decreased since 1999.

### Door County Number of Deaths per Year Caused by Ischemic/Coronary Heart Disease 1999-2008



**2002-2006 Age-Adjusted  
Mortality Rate**  
Door County 108  
Northeast Region 135.0  
Wisconsin 134.2

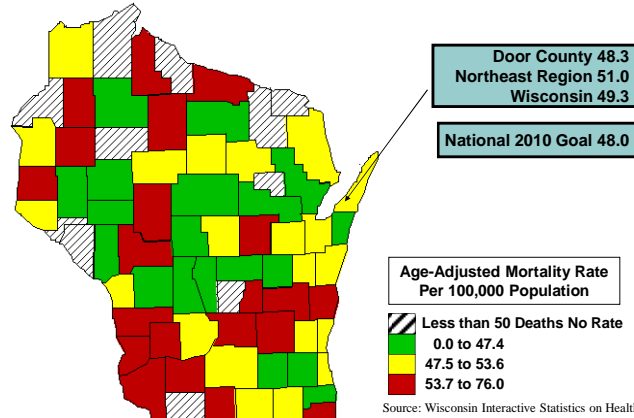
Source: Wisconsin Department of Health Services,  
Wisconsin Interactive Statistics on Health, (WISH).

## Cerebrovascular Disease (Stroke)

Cerebrovascular disease occurs because of poor or obstructed blood flow to the brain. From 2002-2006, 113 Door County residents had cerebrovascular disease listed as the primary cause of death. The age-adjusted mortality rate was 48.3 per 100,000 population. Door County's age-adjusted mortality rate for cerebrovascular disease, as seen below, is lower than the rate in northeast Wisconsin and in the State of Wisconsin.

However, Door County has a higher rate of cerebrovascular disease than at least 30 other counties in Wisconsin. (Source: Wisconsin Department of Health Services – WISH)

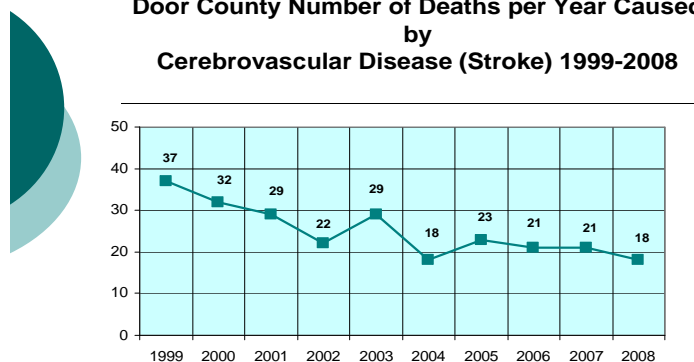
**2002-2006 Age Adjusted Mortality Rate with Cerebrovascular Disease (Stroke) Listed as the Primary Cause of Death**



(Source: Wisconsin Interactive Statistics on Health, (WISH), Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services. Cause of Death – Cerebrovascular Disease: ICD-10 Codes I160-I169, ICD-9 Codes 430-434, 436-438.)

The slide below depicts the number of deaths from 1999 through 2008 due to cerebrovascular disease or stroke in Door County. The number of deaths in Door County from cerebrovascular disease has decreased since 1999.

**Door County Number of Deaths per Year Caused by Cerebrovascular Disease (Stroke) 1999-2008**



**2002-2006 Age-Adjusted Mortality Rate**  
Door County 48.3  
Northeast Region 51.0  
Wisconsin 49.3

Source: Wisconsin Department of Health Services, Wisconsin Interactive Statistics on Health, (WISH).

Heart disease is the leading cause of death among Americans. Stroke is the third leading cause of death. Heart disease and stroke share several risk factors, including: cigarette smoking, high blood pressure, high blood cholesterol, and being overweight.

## **Cancer**

Cancer is an illness caused by an abnormal or unusual growth of cells in the body. The Wisconsin Cancer Reporting System (WCRS) collects reports of all newly diagnosed cancer cases in Wisconsin residents from hospitals, clinics, physician offices, and out-of-state central cancer registries. In November of 2009, the Wisconsin Department of Health Services released summary information collected via the WCRS related to cancer incidence and deaths that occurred from 2002-2006.

Each year from 2002-2006, an annual average of 27,256 cases of cancer were diagnosed among Wisconsin residents. The average age-adjusted incidence rate was 470.3 per 100,000 Wisconsin residents.

Cancer is second only to heart disease as the leading cause of death in Wisconsin. There was an average of 10,841 deaths each year from 2002-2006. In Door County, there were 338 deaths attributed to cancer from 2002-2006. The average death rate in our county was 155.2 per 100,000 residents. This rate was lower than the Wisconsin death rate of 184.3 per 100,000. (Source: *Wisconsin Cancer Incidence and Mortality, November 2009*)

A summary of cancer incidence by type follows:

**Cancer Incidence, 2002-2006\***

<b>Cancer Site</b>	<b>Door County Cases</b>	<b>Door County Rate</b>	<b>Wisconsin Rate</b>
<b>All Sites</b>	1,105	537.5	470.3
<b>Breast (Female)</b>	176	176.2	122.7
<b>Prostate</b>	175	178.4	156.9
<b>Lung and Bronchus</b>	138	63.6	64.8
<b>Colon and Rectum</b>	126	58.6	49.4
<b>Urinary Bladder</b>	59	27.2	21.8
<b>Non-Hodgkin Lymphoma</b>	59	27.3	20.3
<b>Uterine</b>	47	42.1	28.7
<b>Melanoma of the Skin</b>	45	23.9	15.3
<b>Kidney/Renal Pelvis</b>	37	17.0	14.8
<b>Leukemia</b>	27	13.9	14.5
<b>Pancreas</b>	25	12.2	11.4
<b>Ovary</b>	17	14.7	15.7
<b>Cervical</b>	9	11.6	6.6
<b>Esophageal</b>	7	3.3	5.9

\*Rates are age-adjusted per 100,000 population  
(Source: *Wisconsin Cancer Incidence and Mortality, November 2009*)

## **Diabetes**

Diabetes is a metabolic disease in which a person has a high level of blood sugar because the body does not produce insulin or the body does not respond to insulin. There are two main types of diabetes, Type 1 and Type 2. Type 1 occurs mainly in children and adolescents. In Type 1, the body does not produce insulin and insulin needs to be provided. Type 2 usually occurs in adults over 30 years of age. In Type 2, the body's tissues become unable to effectively use its own limited amount of insulin. Treatment of Type 2 diabetes consists of a combination of physical activity, proper nutrition, oral tablets, and insulin.

Diabetes poses a significant public health challenge for the United States. It is a widespread and rapidly growing chronic disease. Recent age-adjusted estimates from the *2008 Burden of Diabetes in Wisconsin* indicate that 6.7% of adult Wisconsin residents have been diagnosed with diabetes. This is a relative increase of 20% since 1999-2002. It is also estimated that the percentage of children and adolescents in Wisconsin diagnosed with diabetes increased from 0.3% in 2000-2003 to 0.5% in 2004-2006.

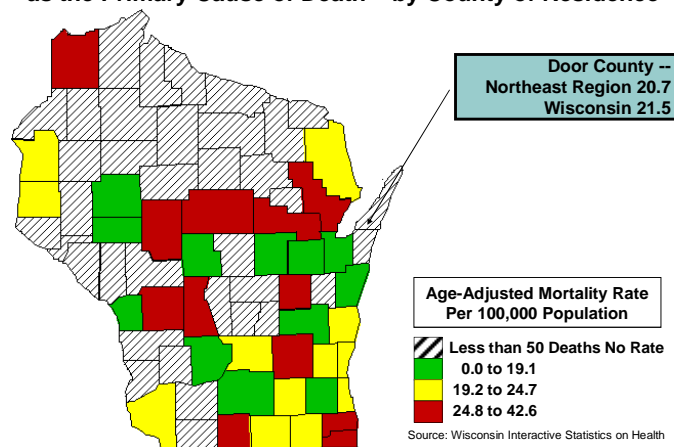
(Source: Wisconsin Department of Health Services, *Report on the Health Status of Wisconsin, December 2010*)

**Morbidity:** There were 43 hospitalizations due to diabetes in Door County in 2008. The rate of hospitalizations was 1.4 per 1,000 residents. In comparison, the hospitalization rate for the northeastern region was 1.1 and the state rate was 1.3 in 2008.

(Source: Wisconsin Department of Health Services, *Public Health Profiles, 2008*)

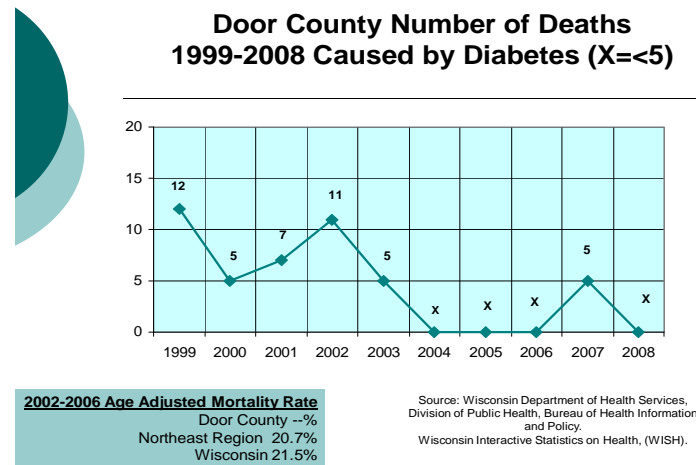
**Mortality:** There were 4 deaths due to diabetes in Door County in 2008. The mortality rate for Door County could not be calculated. In comparison, there were 242 deaths in the northeastern region where the mortality rate was 20 per 100,000 residents. In Wisconsin, there were 1,145 deaths in the state with the mortality rate also 20 per 100,000. (Source: Wisconsin Department of Health Services, *Public Health Profiles, 2008*)

**2002-2006 Age Adjusted Mortality Rate with Diabetes Listed as the Primary Cause of Death – by County of Residence**



(Source: Wisconsin Interactive Statistics on Health, (WISH), Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services. Cause of Death – Diabetes Mellitus: ICD-10 Codes E10-E14, ICD-9 Code 250.)

The slide below shows the number of deaths from 1999-2008 in Door County caused by diabetes. The number of deaths in Door County attributed to diabetes has decreased since 1999.



It is important to remember that Type 2 diabetes is preventable and when diagnosed and managed, the complications of diabetes can be greatly delayed or avoided.

## Asthma

Asthma is a disease in which the airways are inflamed causing difficulty with breathing. In Door County, from 2007-2009 the hospitalization rate for asthma was 5.2 per 10,000 residents. The hospitalization rate for the State of Wisconsin was 9.1 per 10,000 population. Regarding asthma-related hospitalization, Door County is ranked poorly at 51 out of 72 Wisconsin counties.

The 2007-2009 Door County asthma-related emergency room visit rate was 25.8 per 10,000 residents. This is significantly lower than the state's rate of 37.9 per 10,000 population. In this category, Door County ranks in the bottom half at 46 out of 72 Wisconsin counties. (Source: *Burden of Asthma in Wisconsin 2010*)

## KEY FINDINGS

- In 2008, Door County's most common cause of death was heart disease.
- Door County had a higher rate of stroke than at least 30 other counties in Wisconsin from 2002-2006.
- The average rate of mortality due to cancer is lower in Door County than the Wisconsin average from 2002-2006.
- Diabetes-related hospitalization rates are higher in Door County than both the northeast region and the State of Wisconsin in 2008.
- Door County ranks 51 and 46 out of 72 Wisconsin counties in asthma-related hospitalizations and emergency room visits respectively from 2007-2009.

## SECTION 3: COMMUNICABLE DISEASE PREVENTION AND CONTROL

### Focus Area Definition

**Communicable disease prevention and control means surveillance for and protection from communicable diseases. Communicable diseases may result from changes in or evolution of existing infectious agents (bacteria, viruses, parasites, or fungi); spread of infectious agents to new geographic areas or among new populations; persistence of infectious agents in geographic areas and populations; newly emerging infectious agents; or bioterrorism. Communicable disease protection includes, but is not limited to, isolation and quarantine, appropriate immunization, prophylactic (preventive) measures, early interventions including antimicrobial treatment, and public health education.**

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

Improved sanitation and nutrition, vaccinations, antibiotics, antivirals, and antiparasitic medications have led to dramatic reductions in communicable disease rates in communities around the globe. In general, lower respiratory infections (i.e. pneumonia), diarrhea, tuberculosis, and Acquired Immune Deficiency Syndrome (AIDS) present unique challenges and are leading causes of death worldwide. While death rates associated with communicable diseases are low in Door County, significant challenges associated with existing, emerging, and re-emerging communicable diseases continue.

The following focus areas are examined in this section:

- ☐ AIDS/HIV Infection
- ☐ Food and Water Borne Illnesses
- ☐ Pneumonia and Influenza
- ☐ H1N1 Influenza
- ☐ Influenza Related Data
- ☐ Tuberculosis
- ☐ Public Health Preparedness

Wisconsin Statute 252.05 and Administrative Rule Chapter HFS 145 require that health care providers and certain other persons (i.e. person in charge of infection control at a health care facility, laboratory directors, school nurses, principals of schools, and daycare directors) have knowledge that if a person has a communicable disease, this information should be reported to the local health department.

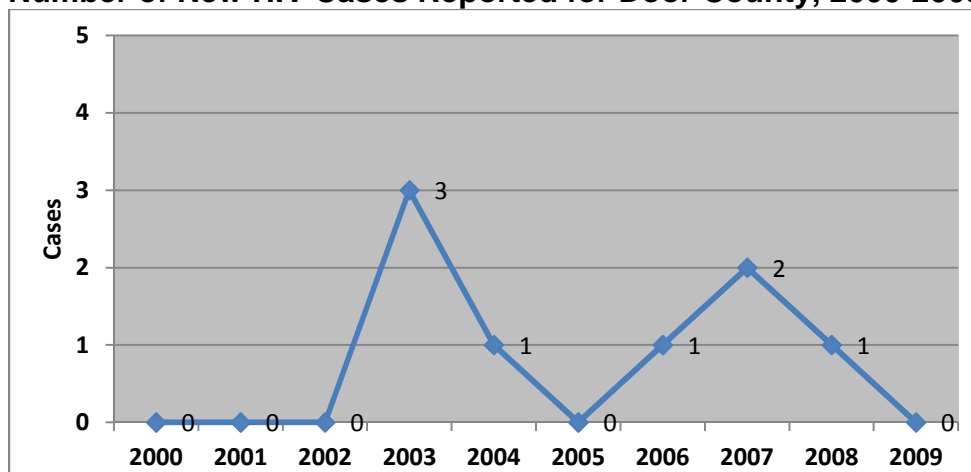


## **AIDS/HIV Infection**

In 2009, 443 new cases of human immunodeficiency virus (HIV) were reported in Wisconsin. This brought the total number of cases reported since 1983 to 10,765. Among all reported cases, two-thirds (7,232) met the Centers for Disease Control (CDC) criteria for acquired immune deficiency syndrome (AIDS); one-third (3,533) of reported cases did not.

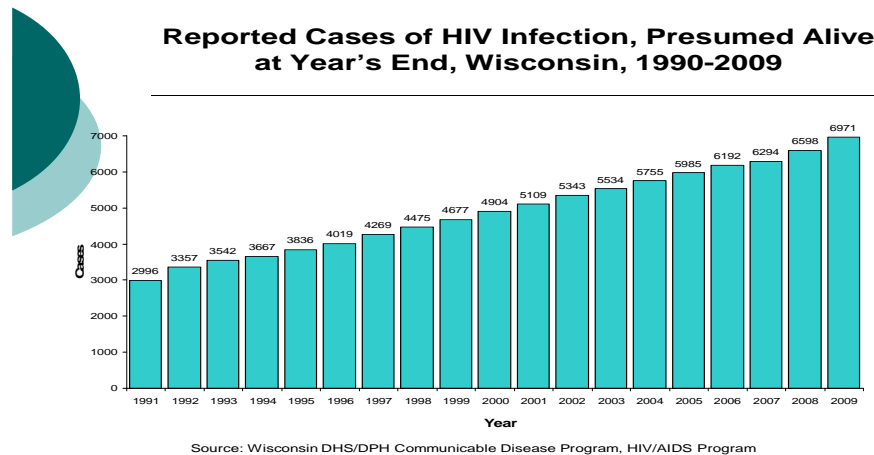
There were 22 cases of HIV infection reported in Door County between 1983 and 2009. Fourteen of the 22 cases were reported before 2000. The following graph shows the trend in the number of new reports of HIV infection in Door County each year from 2000 through 2009.

**Number of New HIV Cases Reported for Door County, 2000-2009**



(Source: Wisconsin Department of Health Services AIDS/HIV Program)

Deaths among persons reported with HIV infection in Wisconsin have declined since the early-to-mid 1990's as improvements in treating HIV disease have developed. However, the number of new infections has increased. The ever-increasing number of persons living with HIV has implications for medical care and other supportive services. Below is a chart depicting the number of cases of individuals in Wisconsin living with HIV infection from 1990 through 2009. Data clearly shows the number has increased every year since 1990. Continuous increases in the data may be due to increased new infections and/or improvements in medication.

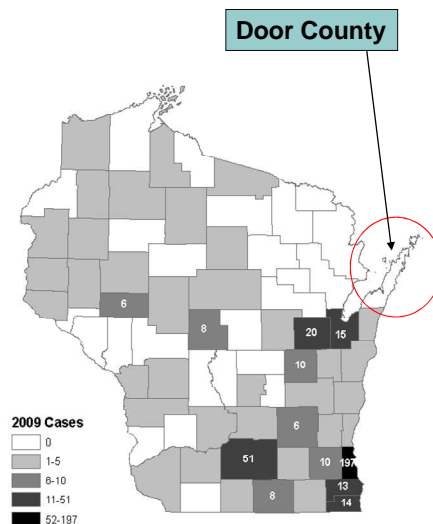


Research from the Wisconsin Department of Health Services AIDS/HIV Program shows that males are affected at a rate four times that of females; males made up 79% of persons reported with HIV infection in 2009 and 80% of all persons living with HIV.

In 2009, cases were reported from 46 of the 72 counties in Wisconsin. However, the distribution of reporting and the cases of those living with HIV infections is uneven. Most new cases in 2009 occurred in the Southeastern, Central Eastern, and Southern regions of the state.

## 2009 Cases By County

## Reported Cases of HIV Infection by County, Wisconsin, 2009



Source: Wisconsin DHS/DPH Communicable Disease Program, HIV/AIDS Program

The following chart provides demographics and risks for cases of HIV diagnosed in Door County from 1983 through 2009 and cases presumed alive at the end of each year.

### HIV in Door County, 1983-2009

	1983-2009	Cases Presumed Alive
<b>Total Cases</b>	22	14
<b>Disease Category</b>		
AIDS	19	11
Non-AIDS	3	3
<b>Sex</b>		
Male	20	12
Female	2	2
<b>Race</b>		
White	18	10
Non-White	4	4
<b>Age when diagnosed</b>		
<5 years	0	0
5-14 years	0	0
15-19 years	0	0
20-24 years	2	0
25-44 years	15	5
45+ years	5	9
<b>Risk Exposure</b>		
Men who have sex with men (MSM)	19	11
Injecting Drug Use	0	0
MSM and IDU	1	1
High-Risk Heterosexual Contact	2	2
Other	0	0
Undetermined	0	0

(Source: Wisconsin Department of Health Services, *Reported cases of HIV infection Door County, Wisconsin, 1983-2009*)

### **Food and Water Borne Illnesses**

Food and water borne illnesses are caused by consuming contaminated foods and/or beverages. Campylobacter and Salmonella are the most commonly recognized food borne bacterial infections occurring in the United States. Public health investigations and interventions are provided in an effort to reduce and/or stop the spread of disease. Improvements in sanitation have dramatically reduced the burden of water and food borne disease outbreaks.

The following table shows the annual average number of **reportable** food and water borne infection cases from 2003 through 2008 reported in Door County compared to cases reported in Wisconsin.

### Annual Average Number of Food and Water Borne Reported Cases, 2003-2008

	Door County	Wisconsin
<b>Campylobacter</b>	11	1210
<b>Hepatitis A</b>	<5	55
<b>Giardia</b>	4	743
<b>Salmonella</b>	4	933

(Source: Wisconsin Department of Health Services, Public Health Profiles)

In Door County, the Public Health Sanitarians (from the Northeast Wisconsin regional office in Green Bay) inspect licensed food establishments to reduce the risk of food and waterborne outbreaks. The local Door County Public Health Department monitors cases of food or water borne illness and performs measures to decrease the spread of disease.

Norovirus (which is not reportable by state mandate) has been the most frequent cause of food and water borne illness investigations in Door County during the last few years.

### Communicable Disease Investigations, 2006-2010

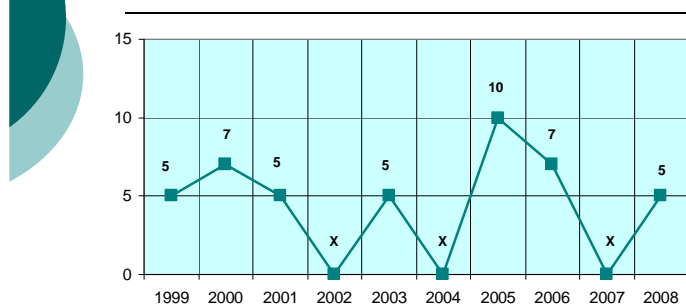
Year	Cause of Illness	Place of Illness	Number Affected
<b>2006</b>	<i>Norovirus</i>	Nursing Home	28
<b>2007</b>	<i>Norovirus</i>	Nursing Home	102
		CBRF	9
		Restaurant	252
	<i>Giardia</i>	Family Reunion	6
<b>2008</b>	<i>Norovirus</i>	Nursing Home	51
		Nursing Home	8
		CBRF	16
<b>2009</b>	<i>H1N1</i>	Door County	18 confirmed
	<i>Respiratory virus</i>	Nursing Home	5 (negative for influenza)
<b>2010</b>	<i>Norovirus</i>	Nursing Home	72
		Nursing Home	13
		Restaurant	22

### Pneumonia and Influenza

In the last 10 years, 44 deaths in Door County were due to pneumonia or influenza. Interestingly, 22 deaths were reported from 1999-2003 and 22 deaths were reported from 2004-2008. The age-adjusted mortality rate per 100,000 population was too low to calculate during 2002-2006. However, the northeastern region's age-adjusted mortality

rate was at 17.2 per 100,000 population and the state rate was 18.3 per 100,000 population. (Source: Wisconsin Department of Health Services, Public Health Profiles)

### Door County Number of Deaths per Year Caused by Pneumonia/Influenza 1999-2008 X=<5



#### 2002-2006 Age-Adjusted Mortality Rate

Door County --  
Northeast Region 17.2  
Wisconsin 19.6

Source: Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy, Wisconsin Interactive Statistics on Health, (WISH).

## H1N1 Influenza

Door County, like other communities throughout the world, experienced the effects of the 2009 H1N1 Influenza Pandemic. There were 18 confirmed cases of H1N1 reported in Door County with no reported deaths. (Source: WEDSS – Wisconsin Electronic Surveillance System)

Cases of H1N1 occurred throughout 2009 and during 2010, but August 30, 2009 through January 2, 2010 was considered the “Fall Wave” of the pandemic. During this time, the state of Wisconsin had 1,071 patients hospitalized with lab-confirmed H1N1 infection: 20% were admitted to an intensive care unit and of those admitted to the ICU 13% were intubated. Eighty percent of these patients had underlying conditions (**Asthma-31%**; COPD-13%; Other lung conditions-12%; Heart condition-15%; **Diabetes-20%**; Kidney condition-8%; Sickle cell disease-1%; and **Obesity-51%**).

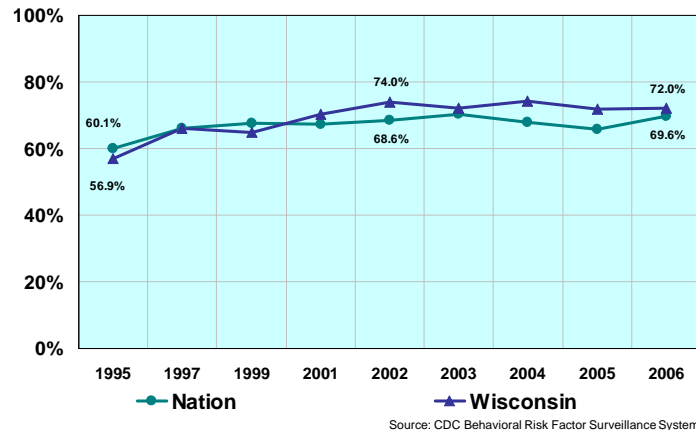
(Source: Wisconsin Division of Public Health)

An effective community vaccination campaign, through the efforts of public health and private healthcare providers, reduced further H1N1 disease transmission. Door County Public Health Department provided 4,542 H1N1 vaccinations at 61 clinic sites between October 2009 and February 2010.

## Influenza Related Data

*Seasonal Influenza Vaccinations:* The Behavioral Risk Factor Surveillance System showed an increase in persons age 65 and older that have received the seasonal influenza vaccine from 1995 through 2006.

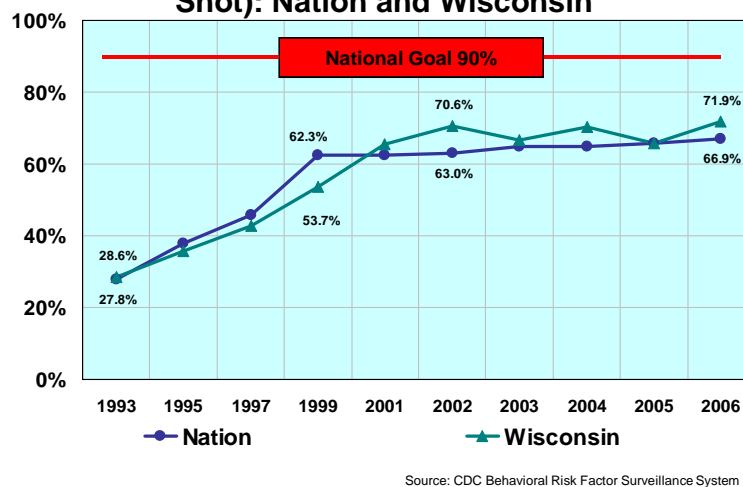
### Percent of Adults 65 years of age and Older Who Ever Had a Flu Shot Within the Past Year: Nation and Wisconsin



(Source: Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion, Center for Disease Control and Prevention, U.S. Department of Health and Human Services)

**Pneumonia Vaccinations:** The national 2010 goal was to increase the proportion of adults vaccinated against pneumococcal disease (pneumonia). Pneumococcal disease is one of the leading causes of vaccine preventable illness and death in the United States. The target for pneumococcal vaccination is 90%. It is recommended for adults 65 and older to receive a pneumococcal vaccine. In Wisconsin and the nation there was an increase in people 65 and older who received a pneumonia vaccine from 1993-2002 (27.8% in Wisconsin and 28.6% nationally in 1993 to 63% in Wisconsin and 70.6% nationally in 2002). There was a slower increase in pneumonia vaccination coverage from 2002 to 2006 at 66.9% in Wisconsin and 71.9% nationally.

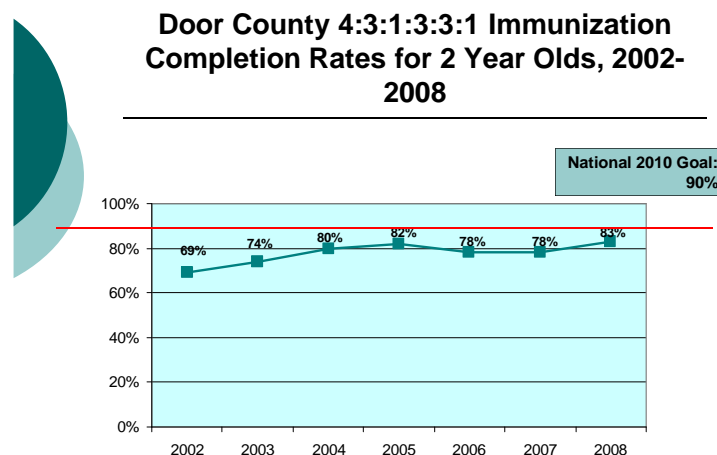
### Percent of Adults 65 years of age and Older Receiving Pneumococcal Vaccine (Pneumonia Shot): Nation and Wisconsin



(Source: Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion, Center for Disease Control and Prevention, U.S. Department of Health and Human Services)

*Childhood Vaccinations:* Vaccines have been proven to be among the most affordable and effective health interventions available today. During the 1950's, nearly every child developed measles. Measles is an easily spread virus known for causing a rash, fever, cough and watery eyes, and feared because it can also cause pneumonia, seizures, brain damage or death. Today, thanks to childhood immunizations, childhood vaccine preventable diseases like measles are *extremely rare* in the United States.

National immunization recommendations indicate that by age two all children receive a basic series of childhood vaccinations (4 DTap, 3 Hepatitis B, 3 Hib, 1 MMR, 3 Polio, 3 Pneumococcal and 1 Varicella). Door County's children are well immunized. There was an increase in the county's immunization rate from 69% in 2002 to 83% in 2008.



Wisconsin Immunization Law requires students to receive a minimum number of required immunizations to attend school or daycare. Waivers are available only for religious, health, and personal conviction reasons. Door County school immunization law compliance (97.9% in 2008) is higher than the State of Wisconsin (96.1% in 2008).  
(Source: Wisconsin Department of Public Health Services, Public Health Profiles)

## **Tuberculosis**

*Tuberculosis:* Once prevalent diseases, such as tuberculosis (TB), are re-emerging in areas where they were once under control. Tuberculosis, a disease caused by germs spread from person to person through the air, can be either latent or active. Individuals with latent tuberculosis have the tuberculosis germ in their bodies, but they are not sick because their body is able to keep the germ under control. Individuals with latent tuberculosis are not contagious, but they are at risk for developing active disease in the future. People with active tuberculosis disease are currently sick and contagious. Persons with active or latent tuberculosis require medication to either treat the active disease or prevent the disease from becoming active. In some cases, due to inappropriate medication usage, the bacteria have become resistant to antibiotics that have been effective in reducing the incidence of the disease in the past.

The chart below shows the number of active cases of tuberculosis in Door County from 2003 through 2009 compared to the number of active cases in Wisconsin.

**Tuberculosis Cases, 2003-2009**

	2003	2004	2005	2006	2007	2008	2009
<b>Door Co.</b>	0	0	0	0	0	0	2
<b>Wisconsin</b>	66	95	78	75	70	68	67

### **Public Health Preparedness**

In the past several years, there has been renewed attention to public health preparedness. The terrorist attack of September 11<sup>th</sup>, the anthrax incidents, SARS, and fears of an influenza pandemic, to name a few, have reaffirmed the importance of having a prepared public health infrastructure.

It has been over a decade now that the Door County Public Health Department has focused on public health preparedness in conjunction with other counties and tribes. The Bioterrorism Consortia of Lake Michigan (BCOLM) was developed in 2001 to foster cooperation between agencies on a regional level and provide necessary resources for planning and training the Wisconsin health workforce to respond to natural or man-made public health disasters, including acts of terrorism.

The Consortia was comprised of 17 different counties and 3 tribes, utilizes funding through grants, develops public health infrastructure for emergency response, communicable disease surveillance, chronic disease, environmental health investigation, and epidemiological interventions. It is with all of this preparation that events such as H1N1 were handled successfully while maintaining other public health operations.



## KEY FINDINGS

- Deaths among persons reported with HIV infection in Wisconsin have declined. However, the number of new infections has increased.
- The greatest incidence of reportable food borne illnesses is attributed to *Campylobacter enteritis*. Yet Norovirus has been the most frequent cause of local public health investigations.
- There were 18 confirmed cases of H1N1 reported in Door County in 2009 with no reported deaths.
- There has been an increased rate of persons 65 and older, in Door County and throughout the state, who have received their seasonal influenza and pneumococcal vaccinations.
- Eighty-three percent (83%) of children born in 2006 received their basic series of childhood vaccines by age two.
- Two cases of active tuberculosis were reported in Door County from 2003 through 2009.
- Public Health infrastructure has been strengthened through public health preparedness training.

## SECTION 4: ENVIRONMENTAL AND OCCUPATIONAL HEALTH

### Focus Area Definition

***Environmental and occupational health involves programs and services used by local communities to identify, prevent, and decrease severity of illnesses or injuries caused by natural, built, or workplace hazards. For successful environmental and occupational health, environmental and public health entities should work together to complete and sustain safe and healthy environments for all individuals. Environmental and occupational health activities may include:***

- Identifying, evaluating, and controlling chemical, radiological, or biological hazards in the air, water, soil, food, and built environments
- Assuring a safe and healthy food supply
- Assuring basic sanitation and safety in public places and workplaces
- Monitoring the safe use and handling of radioactive materials in health care and industry
- Ensuring that workers are protected from physical, chemical, biological, or psychosocial hazards related to work
- Preparing for and responding to natural or manmade disasters
- Conducting surveillance of hazards and pertinent health outcomes to provide evidence used to take action in communities

(Source: *Healthiest Wisconsin 2020: Everyone Living Better Longer*)

Hazards in the environment can contribute to injury or illness. Injury could occur from immediate or accidental exposure to an extremely hazardous condition. Illness, for example cancer, could occur from long-term exposure to a less immediately hazardous condition. In some cases, death can ensue from environmental hazards.

The following focus areas are examined in this section:

- ☐ Air Quality
- ☐ Nitrate in Water
- ☐ Housing with Increased Lead Risk
- ☐ Lead Poisoned Children
- ☐ Radon Risk
- ☐ Occupational Injury, Illness, and Death

### **Air Quality**

According to the 2008 Wisconsin County Health Rankings report, Door County is ranked 62 out of 72 counties in air quality. The *Health Ranking* report classifies counties based on an air quality score. The air quality score is determined as a

composite score of Cancer Risk, Respiratory Hazard Index, Fine Particulate Matter, and Ozone present at air monitoring sites. Data in this survey was collected from the Environmental Protection Agency (EPA) and the Department of Natural Resources (DNR). The minimum air quality score in Wisconsin is 39.3 and the maximum air quality score in Wisconsin is 81.4. The average air quality score in Wisconsin is 60. Door County's air quality score is 60.5.

In the *2011 County Health Rankings*, data from 2006 shows that Door County had an estimated 6 days of unhealthy air quality due to fine particulate matter throughout the year. The County of Door ranked below 10 other counties and tied with two other counties for most days of unhealthy air quality due to fine particulate matter.

Similarly, in *2011 County Health Rankings*, data from 2006 shows Door County had an estimated 6 days of unhealthy air quality due to ozone throughout the year. The County of Door ranked below only Sheboygan County and tied with one other county for most days of unhealthy air quality due to ozone.

The *2008 Wisconsin Health Ranking* report also demonstrates ozone present in Door County was the highest in the state at 90 parts per billion. Ozone is important if it is very high in the air. However, ozone that is measured on ground level can be detrimental. High ozone levels can especially affect people who are active, people with lung disease, children, or older adults. Ozone can irritate your lungs or aggravate asthma or other lung conditions.

### **Nitrate in Water**

In the *2008 Wisconsin County Health Rankings* report nitrate levels in water are measured as percentage of population exposed to nitrates above a Preventative Action Level of 2 mg/L. Door County is ranked 62 out of 72 counties in the category of Nitrate Levels in Water. The minimum percentage above 2 mg/L in Wisconsin is 0.0%. The maximum percentage above 2 mg/L in Wisconsin is 86.8%. Average percentage above 2 mg/L in Wisconsin is 40.7%. Door County's percentage above 2 mg/L is 72.2%.

According to 2007 data from the United States Geological Survey, 97% of 682 private wells in Door County tested for water quality were in the safe level for nitrate-nitrogen. The safe level for nitrate-nitrogen is considered less than 10 milligrams per liter (or parts per million). There were 19 samples, or 3%, that were above the safe level. Of the 682 samples, 254, or 37%, contained levels of nitrate-nitrogen between 2 and 10 milligrams per liter. The United States Geological Survey reports that this 37% can be indicative of land use affecting groundwater quality.

Nitrate levels in water can have many negative health effects, including causing methemoglobinemia (a condition in which blood cannot effectively carry oxygen to the body's tissues), causing birth defects, or causing gastric problems. Nitrates in water are

especially dangerous for infants or individuals with reduced stomach acidity or are deficient in certain enzymes.

The Door County Sanitarian Department provides environmental services to protect Door County. A table including environmental health services recorded by the Sanitarian Department in 2008 and 2009 is shown below.

#### **Environmental Health Services in Door County, 2008-2009**

	<b>2008</b>	<b>2009</b>
<b>Private On-Site Systems Installed</b>	441	597
<b>Sanitary Permits Issued</b>	457	494
<b>Soil Reports Filed</b>	379	301
<b>Conventional Plans Reviewed for One and Two Family Homes</b>	95	94
<b>Holding Tank Plans Reviewed</b>	66	78
<b>Human Health Hazards Investigated</b>	1	3

(Source: Door County Sanitarian Department)

#### **Housing with Increased Lead Risk**

The *2008 Wisconsin County Health Rankings* report includes data on housing with increased lead risk. Housing built before 1950 is at greater risk of causing lead poisoning for those residing in the home. In children, increased lead levels can lead to hyperactivity, stunted growth, learning disabilities, or other problems. Adults exposed to increased levels of lead can have trouble with memory, fertility, and a variety of additional problems. In the report, statistics are based on the percentage of housing units built before 1950.

*County Health Rankings* show that Door County is ranked 30 out of 72 counties in the percentage of housing with lead risk. The minimum percent of houses at-risk in Wisconsin is 8.2%. The maximum percent of houses at-risk for a county in Wisconsin is 52.6%. The average percent of houses at-risk in Wisconsin is 31%. Door County's percent of houses with increased lead risk is 30.7%.

#### **Lead Poisoned Children**

Lead poisoning can cause health problems for adults, but also children. The *2008 Wisconsin County Health Rankings* report on lead poisoned children measures the percentage of lead tests on children under age six that test positive for lead poisoning. According to the report, Door County is tied for a ranking of first among 72 counties.

Door County Public Health Department reports for lead poisoning include records from 2004 through 2009 of total number of children tested for lead in Door County and the number of increased lead levels initially and after initial screening. The following table depicts results tabulated by the Door County Public Health Department.

### Children Tested for Lead in Door County, 2004-2009

	2004	2005	2006	2007	2008	2009
<b>Total Tested</b>	296	345	313	357	373	418
<b>Elevated Lead Levels at Initial Screening</b>	2	3	1	0	1	0
<b>Elevated Lead Level after Rescreening</b>	0	2	0	0	1	0

(Source: Door County Public Health Department)

### **Radon Risk**

Radon is second only to smoking as a leading cause of lung cancer. The 2008 *Wisconsin County Health Rankings* data measures the percentage of homes tested that have radon levels greater than 10 pCi/L at the basement level, which corresponds to 4 pCi/L at ground level. According to this report, 1,124 homes were measured for radon levels and of those homes, 157 were above the recommended 10 pCi/L and required improvements. This comes to a total of 14% of measurements unsafe in Door County. Door County ranks 58 out of 72 counties in the percentage of radon tests requiring improvements.

### **Occupational Injury, Illness, & Death**

Occupational injury, illness, and death are physically, socially, and financially costly and preventable problems. Taking appropriate action to prevent hazardous occupational conditions can lead to astronomical savings for individuals, families, employers, and communities. The Wisconsin Department of Health Services (DHS) reported that in 2006 there were 91 work-related deaths in Wisconsin. Wisconsin's rate of injury for all industries, state, and local government in 2006 was 5.5 injuries per 100 FTE's. The total number of work related injuries in Wisconsin in 2006 was 103,400.

Door County's records from the Department of Workforce Development reporting injury, illness, and death in Door County are shown in the table below. Over the three years presented in the data, it appears there have been significant cost savings from 2004 through 2006 regardless of the number of claims.

### Door County Occupational Injury or Illness, Death, and Cost, 2004-2006

Year	Number of Claims	Cost	Average Cost Per Claim	Deaths
<b>2006</b>	145	\$621,310.25	\$4,284.90	0
<b>2005</b>	159	\$743,251.23	\$4,674.54	0
<b>2004</b>	144	\$878,913.60	\$6,068.84	0

(Source: Department of Workforce Development)

## KEY FINDINGS

- In 2006, Door County had an estimated six days of poor air quality due to fine particulate matter.
- Door County had an estimated six days of poor air quality due to ozone in 2006.
- Ozone in Door County was reported in 2008 as being estimated the highest in the state.
- In 2007, 97% of private wells sampled tested safe for nitrate-nitrogen levels.
- There were 19 samples of 682 private wells tested in 2007 that were above the safe level for nitrate-nitrogen.
- In Door County, 31% of houses were reported as a lead risk.
- Door County, from 2004 to 2009, has experienced only three cases of elevated lead levels in children after rescreening with 2 elevated levels in 2005 and 1 in 2008.
- In a 2008 report, 14% of radon measurements in Door County were reported unsafe.
- Occupational injury, illness, or death costs decreased from 2004 to 2006 in Door County.

## SECTION 5: HEALTHY GROWTH AND DEVELOPMENT

### Focus Area Definition

***Healthy growth and development requires family-centered, community-based, culturally competent, coordinated care and support throughout the life course during preconception and prenatal periods, infancy, childhood, adolescence, and adulthood.***

#### ***Components include:***

- Addressing factors that affect biologic, psychological, and social growth and development
- Conducting screening, prevention, and intervention to promote healthy growth and development across the lifespan
- Promoting healthy social, emotional, behavioral, cognitive, linguistic, and motor development

*(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)*

Healthy growth and development is a multifaceted topic including numerous aspects of life throughout the lifespan.

The following focus areas are examined in this section:

- ☐ Prenatal Care in the First Trimester
- ☐ Access to Health Care

### **Prenatal Care in the First Trimester**

The importance of early and regular prenatal care is well documented. Research indicates that infants of mothers who do not receive early and regular prenatal care are three times more likely to be born at less than 5.5 pounds (low birth weight) and five times more likely to die than infants born to mothers who received early and regular prenatal care. (Source: [www.womenshealth.gov](http://www.womenshealth.gov))

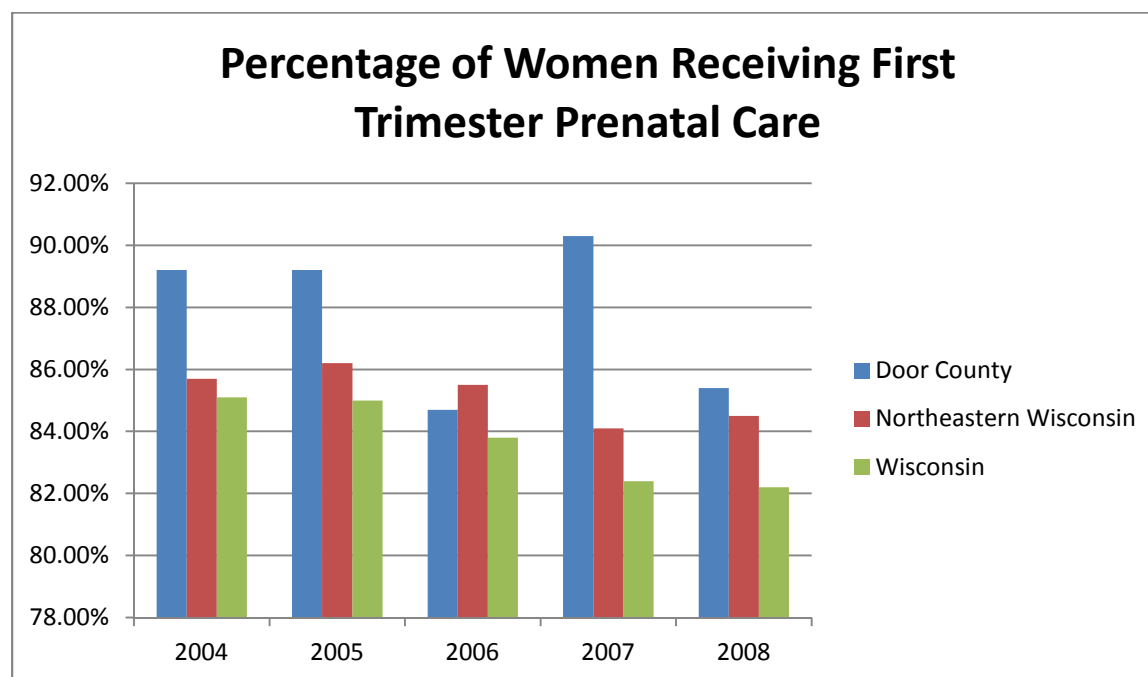
Access to prenatal care during the first trimester of a pregnancy can enhance pregnancy outcomes by assessing risk, providing health care advice, and managing chronic and pregnancy-related health conditions.

*(Source: Wisconsin Department of Health Services, Report on the Health Status of Wisconsin, December 2010)*

From 2004-2008, in the first trimester, 87.2% of pregnant women in Door County received prenatal care. The National 2010 goal was 90%. In comparison, during the same time period, 85.1% of women residing in the northeastern region and 83.6% of women in Wisconsin received care during the first trimester of pregnancy. The percentage of Door County women obtaining early prenatal care remains about the

same as one decade earlier (1994-1998), when 87.0% of pregnant Door County women obtained first trimester care.

The chart below compares the percentages of pregnant women from the years 2004-2008 who received first trimester care in Door County, northeast Wisconsin, and Wisconsin. To add perspective, a table is included showing the total number of live births in Door County from 2004-2008.



(Source: WISH, Prenatal Care Module, Wisconsin Department of Health Services Reference Center)

#### Total Live Births: Door County, 2004-2008

<b>2008</b>	253
<b>2007</b>	248
<b>2006</b>	248
<b>2005</b>	258
<b>2004</b>	232

(Source: WISH data query system, <http://dhfs.wisconsin.gov/wish>)

### **Access to Health Care**

Research demonstrates that the healthy growth and development of youth is closely related to living in safe and healthy environments and having easy and affordable access to health care.

Providing people with access to health insurance is vital to keeping people healthy, independent, and productive, as well as avoiding financial hardship from catastrophic illness. Wisconsin historically had one of the highest insurance rates nationally. In 2009, based on the Current Population Survey published by the U.S. Census Bureau,



Wisconsin was one of the 4 states with the lowest rates of people without health insurance and one of the 5 states with the lowest rates of children not covered by health insurance. The Wisconsin Department of Health Services is trying to increase access to health insurance for more Wisconsinites. However, the progress in reducing the number of uninsured adults is slowing because some employers have discontinued offering health insurance benefits to their employees due to rising insurance and health care costs. (Source: Wisconsin Department of Health Services, *Report on the Health Status of Wisconsin, December 2010*)

Significant expansion in the numbers of Door County residents enrolled in Medicaid has occurred over the past seven years as demonstrated in the chart below.

#### **Door County Medical Assistance Enrollment**

<b>Service</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010*</b>
<i>Badger Care/Family Coverage</i>	2011	2085	2101	2104	2389	2897	3446*
<i>Elderly/Disability Coverage</i>	555	573	562	566	572	576	570*
<i>Other Coverage (including Family Planning Waiver)</i>	438	543	570	546	515	526	549*
<b>Total Coverage</b>	<b>3004</b>	<b>3201</b>	<b>3233</b>	<b>3216</b>	<b>3476</b>	<b>3999</b>	<b>4565*</b>

\*Note: Reflects only 11 months-December numbers were not available at time of calculation.

(Source: *Door County Economic Support 481 Report*)

Despite increased enrollment in Medicaid, there continues to be growing concerns regarding access to dental care in our community. The Open Door Dental Clinic was developed and provides free dental services to children ages 3-18 who are Medicaid recipients without access to a dentist or who are uninsured. Currently, there are only limited options in Door County for Medical Assistance clients below the age of three and above the age of 18.

Door County offers two medical facilities with multiple physicians and specialties (North Shore Medical Clinic and Aurora), private physicians, chiropractors and dentists. Services are offered on a sliding scale fee at the Community Clinic of Door County. This clinic provides primary (non-emergency) health and mental health care for those who do not have health insurance and are underinsured. The Wellness Center of Door County is a non-profit organization that provides sexual, reproductive and related health care for men and women serving those with and without health insurance.

## KEY FINDINGS

- Wisconsin is among the states with the lowest rates of people and children with no available health insurance.
- The percentage of Door County women obtaining prenatal care has remained about the same from 1994 to 2008.
- There has been a 10% increase in Medical Assistance enrollment between 2004 and 2009.
- Door County offers a variety of health practitioners for those who have insurance or are underinsured as well as dental services for children who are Medicaid recipients without access to a dentist or are uninsured.

## SECTION 6: MENTAL HEALTH

### Focus Area Definition

**Mental health is an integral and essential component of health. Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community. In this positive sense, mental health is the foundation for individual well-being and the effective functioning of a community.** (Source: World Health Organization, fact sheet no.220)

- The prevalence of current serious psychological distress (SPD) among Wisconsin adults is approximately 3 percent (2007), and the prevalence of current depression is approximately 7 percent (2006).
- *Health Risks and Chronic Diseases:* Controlling for age and other relevant factors, Wisconsin adults with SPD or depression are 2-3 times more likely to smoke and to be physically inactive than those without SPD or depression. Adults with SPD are 3-5 times more likely than those without SPD to have chronic diseases, including asthma and cardiovascular disease, but the association between depression and chronic diseases is less evident.
- *Functional Limitations:* Adults with SPD or depression are 3-6 times more likely to have functional limitations, such as being unable to work, due to mental health and/or physical health problems, compared to those without SPD or depression. Adults with SPD are more frequently limited in their activities than adults with chronic physical diseases.
- *Quality of Life:* Adults with SPD or depression are significantly more likely to have self-reported fair or poor health, to be dissatisfied with life and to perceive that they have little or no social support, compared to those without SPD or depression.

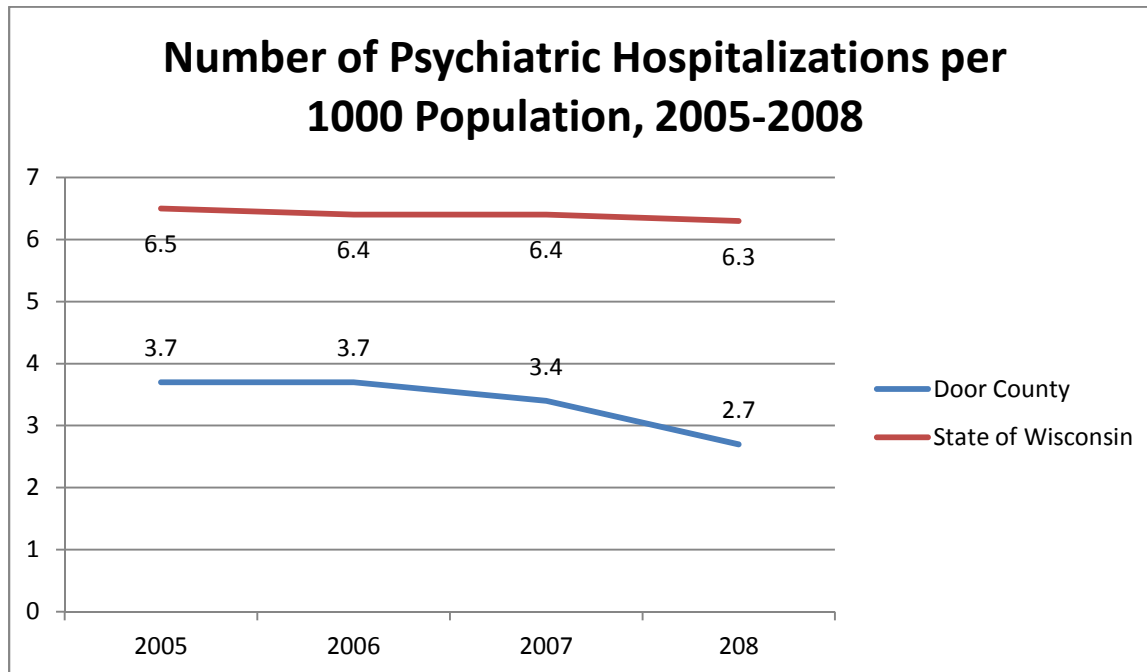
(Source: Wisconsin Department of Health Services, *Wisconsin Behavioral Risk Factor Surveillance Survey*, April 2009)

The following focus areas are examined in this section:

- ☐ Psychiatric Hospitalizations
- ☐ Suicide
- ☐ Youth
- ☐ Access to Mental Health Services

## **Psychiatric Hospitalizations**

According to data from 2005 through 2008 Public Health Profiles presented by the Wisconsin Department of Health Services, the number of psychiatric hospitalizations per 1000 population in Door County remains well below the number for the State of Wisconsin. (Note: Hospitalization rate is based on county of residence.)



(Source: Wisconsin Department of Health Services, Public Health Profiles)

## **Suicide**

In 2008, the Wisconsin Department of Health Services released its report “The Burden of Suicide”. The following information from that report represents data specific to Door County from 2001-2006.

The suicide rate in Door County for all years was higher than the state rate for all years (17.3 versus 11.8).

Firearms were the most frequently used method in Door County suicides (40%) followed by hanging, strangulation, or suffocation (33%) and poisoning (23%).

Numbers and rates (per 100,000 population) of suicides, inpatient hospitalizations, and emergency department visits due to self-inflicted injuries, by age, Door County, 2001-2006.

Age Group	Deaths		Inpatient Hospitalizations		Emergency Department Visit <sup>a</sup>	
	Number	Rate <sup>†</sup>	Number	Rate <sup>†</sup>	Number	Rate <sup>†</sup>
5-14	2	10.3 <sup>†</sup>	7	36.2 <sup>†</sup>	6	38.0 <sup>†</sup>
15-24	7	36.9 <sup>†</sup>	31	163.3	28	175.6
25-34	7	44.7 <sup>†</sup>	17	108.5 <sup>†</sup>	9	69.1 <sup>†</sup>
35-44	7	29.5 <sup>†</sup>	35	147.4	4	20.6 <sup>†</sup>
45-54	2	6.9 <sup>†</sup>	15	51.5 <sup>†</sup>	8	32.6 <sup>†</sup>
55-64	2	8.0 <sup>†</sup>	3	12.1 <sup>†</sup>	3	14.1 <sup>†</sup>
65-74	2	11.5 <sup>†</sup>	2	11.5 <sup>†</sup>	0	--
75-84	1	8.6 <sup>†</sup>	3	25.7 <sup>†</sup>	1	10.2 <sup>†</sup>
85+	0	--	0	--	0	--
<b>Total</b>	<b>30</b>	<b>17.3</b>	<b>113</b>	<b>68.3</b>	<b>59</b>	<b>42.6</b>

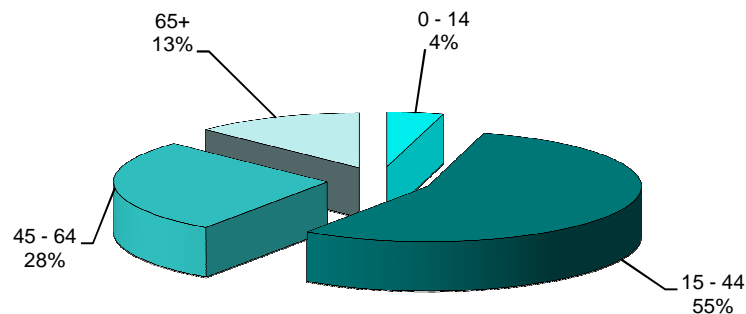
<sup>a</sup>Emergency department data are not available for 2001.

<sup>†</sup>Rates based on numbers of 20 or less are considered unstable due to random chance and should be interpreted with caution.

(Source: Wisconsin Department of Health Services, *The Burden of Suicide in Wisconsin*)

During 1999-2008, there were 47 deaths in Door County with suicide listed as the primary cause of death. The graph below shows the actual number by age group. Suicide data is collected from death certificates and is often underreported.

### Door County Number of Deaths By Suicide (By Age Group) 1999-2008



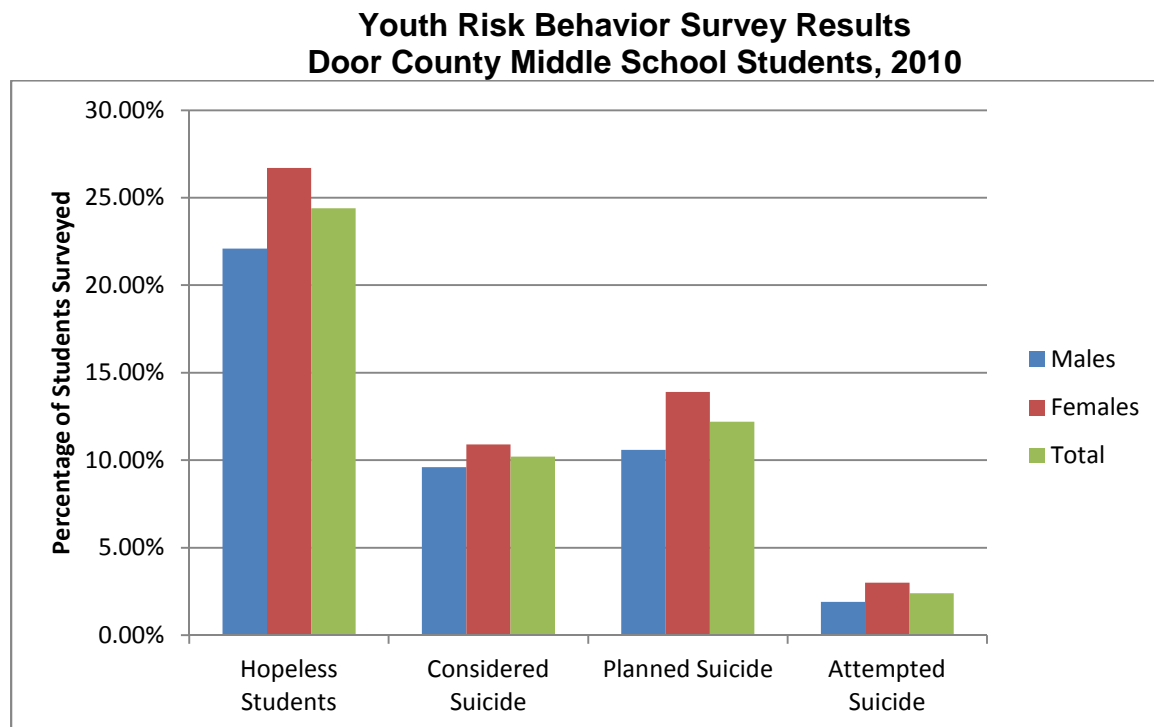
(Source: Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy, Wisconsin Interactive Statistics on Health, (WISH)).

### Youth Risk Behavior Survey

In the fall of 2010, the majority of Door County schools administered the Youth Risk Behavior Survey to students. (Washington Island School's data was not available when results were compiled). The middle school students are in grades 6 through 8 and the

total sample size is 205 students. The graph below is from Door County Middle School students and shows:

- Percentage of students who have felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities.
- Percentage of students who have seriously considered attempting suicide.
- Percentage of students who have ever made a plan about how they would attempt suicide.
- Percentage of students who have attempted suicide.

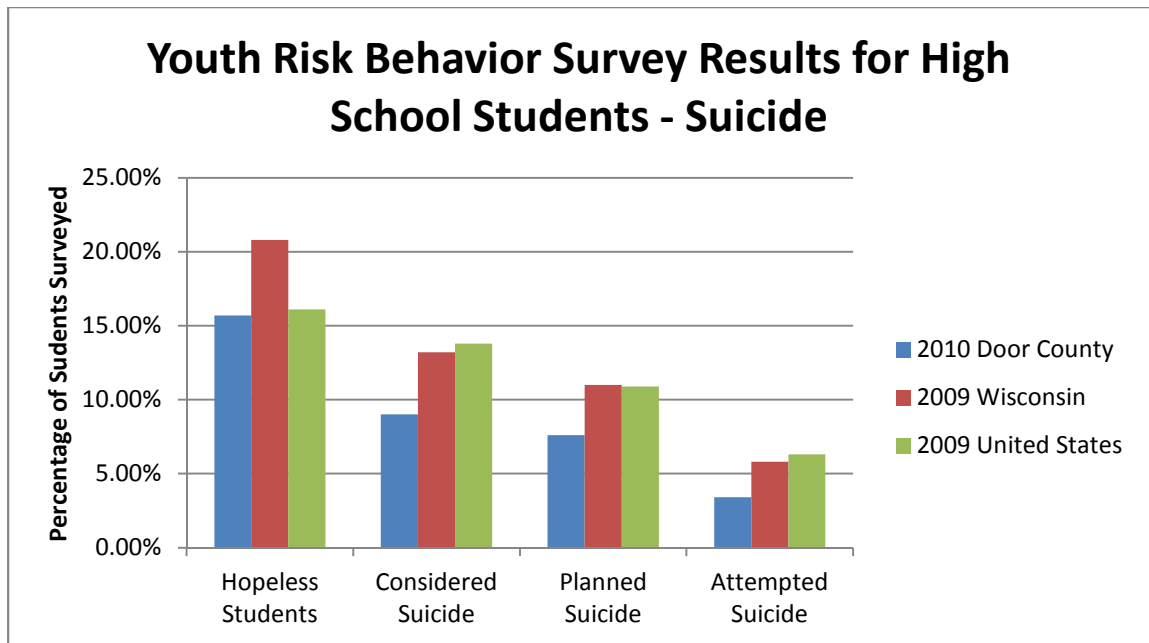


(Source: Youth Risk Behavior Survey, Door County Middle School Students, 2010)

The 2010 Youth Risk Behavior Survey for Door County was also completed by Door County high school students in grades 9 through 12, with total sample size 708.

Shown are survey results from Door County high school students in 2010, compared to Wisconsin (sample size 2434) and United States (sample size 16,460) high school survey results from 2009. (Categories graphed below, are the same as described above in the middle school survey.)

The Door County survey results show less concerns with depression and suicide than Wisconsin or national survey results.

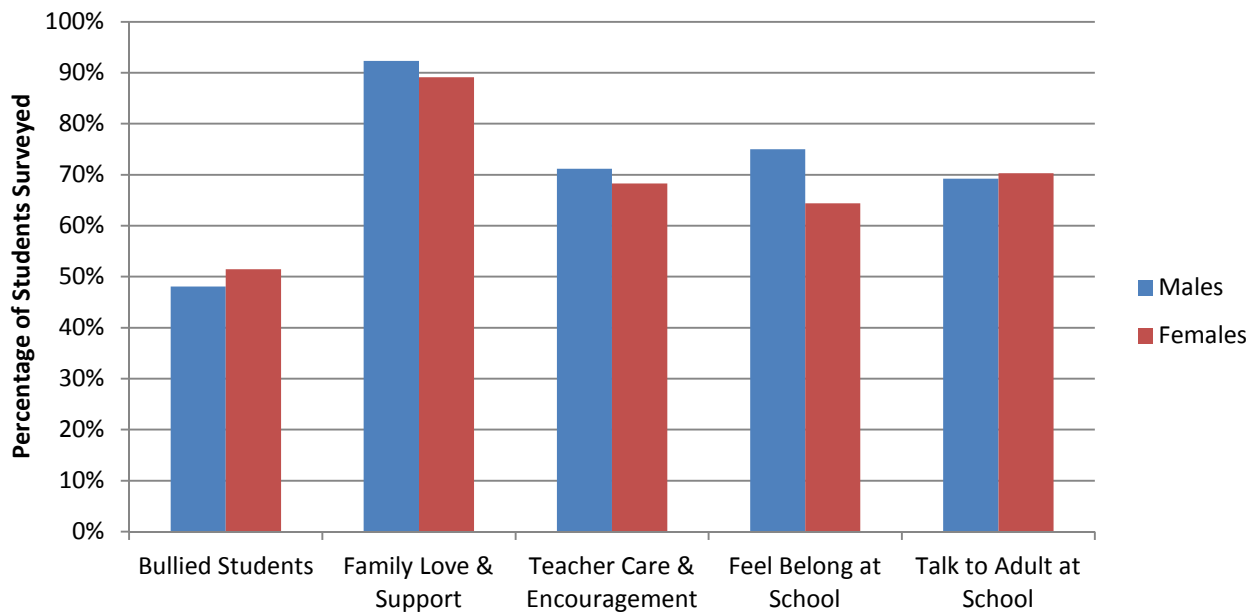


(Source: Youth Risk Behavior Surveys-Door County 2010, Wisconsin 2009, United States 2009)

Door County middle school students were also surveyed regarding personal safety and social support. The following graph shows:

- Percentage of students who have ever been repeatedly harassed, picked on, or bullied at school.
- Percentage of students who strongly agree that their family loves them and gives them help and support when they need it.
- Percentage of students who strongly agree that their teachers really care about them and give them a lot of encouragement.
- Percentage of students who report having at least one teacher or adult in their school that they can talk to if they have a problem.

## 2010 Youth Risk Behavior Survey Results for Middle School Students in Door County - Social Support



(Source: Youth Risk Behavior Survey, Door County Middle School Students, 2010)

### **Access to Mental Health Services**

The Behavioral Risk Factor Surveillance System is a state-based system of health surveys of adults aged 18 and older conducted in the 50 United States, the District of Columbia, and three U.S. territories (Puerto Rico, Guam, and the Virgin Islands). Health departments collaborate with the Centers for Disease Control and Prevention to maintain consistent and quality data collection. Data takes in to account sampling design and population characteristics, and represents adult populations living in households with landline telephones. For the first time, in 2006 and 2007, the Wisconsin survey included questions on mental health.

People with mental health disorders may have difficulty accessing primary care and/or mental health care services for a variety of reasons, foremost among them issues of cost and coverage. In Wisconsin, the prevalence of serious psychological distress among adults with annual household incomes below \$25,000 is four times that of people making \$25,000-\$49,999 (8% vs. 2%), and people with low incomes are less likely to have health insurance. In addition, incomplete health care coverage among those with low incomes may result in more frequent and larger out-of-pocket payments. For those who have health insurance, lack of parity between physical and mental health care coverage can result in under-treatment for mental health conditions and out-of-pocket expenses when treatment coverage limits are exceeded.



Finally, people with co-occurring physical and mental health disorders are more likely to avoid treatment or discontinue it early, denying themselves the complete set of services they need.

Stigma associated with mental health conditions may play a role in such decisions for adults whose providers over-emphasize the mental health diagnosis, or label, in the treatment process and fail to incorporate the client's strengths. Fear of discrimination and isolation from family, friends, and society also influences clients' decisions to access or remain in treatment.

(Source: *Linking Mental and Physical Health*, Wisconsin Behavioral Risk Factor Survey, April 2009, Wisconsin Department of Health Services)

As do most Wisconsin counties, Door County has clinics offering professional counselors which accept insurance or private pay. In addition, all Door County residents are eligible, through the Door County Department of Community Programs, for mental health services on a sliding scale fee. For the past five years, the Door County Department of Community Programs has had the services of a psychiatrist, Dr. Anne Miller. Dr. Miller's salary for a month is comparable to what other counties pay consultant psychiatrists for only several days of services per week. This is a county program, and counties surrounding Door County do not all have the same availability of mental health services. Also, the Community Clinic of Door County offers counseling services to those who have no health insurance.

**“Door County Dept of Community Programs (DCDCP) provides basic mental health care with a broad range of services, as well as the Community Support Program. The CSP Program serves those with severe and persistent mental illness, with a current caseload of 58 individuals. There are several important benefits of having a psychiatrist (Dr. Miller) on staff. Psychiatric hospitalizations may be prevented, or if there is a hospitalization, earlier discharge may be possible by planning follow-up with Dr. Miller. Her current caseload is 298 patients.**

**I am pleased to see the recent interest in the Suicide Prevention Program ‘QPR’ as an important grassroots movement of community people coming together. Cheryl Wilson is coordinating volunteer trainings for the ‘Question, Persuade, Refer’ Program.**

**--Joe Krebsbach, Director, Door County Department of Community Programs**

According to Joe Krebsbach, Director of Door County Department of Community Programs (DCDCP), in general about 10% of any population has mental health issues. Krebsbach also reports that Door County mental health professions have strong collaborative relationships between agencies such as DCDCP, Door County Social Services, area schools, private counseling agencies, law enforcement, and others. The relationship between DCDCP and law enforcement helps to make Door County's mental health crisis services top notch. DCDCP holds a quarterly meeting for the agencies that

provide services in Door County, which helps all agencies to be aware of the services that are being provided. Krebsbach feels more could be done in the area of prevention in our county. With budget constraints, it is unlikely that prevention activity could occur through DCDCP. The National Alliance on Mental Illness (NAMI) of Door County also provides an educational program on mental health issues called Family to Family.

## **KEY FINDINGS**

- The Door County rate of psychiatric hospitalizations is lower than Wisconsin's rate.
- In Door County, the suicide rate is higher than that of the State of Wisconsin.
- About one half of the students in Door County middle schools feel they have been repeatedly bullied at school.
- Mental health services are available to all Door County residents regardless of insurance status.
- Door County Department of Community Programs has the services of a staff psychiatrist.
- Other strengths of mental health care in our community include strong collaborative relationships between professional agencies, and NAMI of Door County's educational/prevention activities.

## SECTION 7: ORAL HEALTH

### Focus Area Definition

***Oral health is a component of general health throughout a person's life. Someone maintains good oral health if they do not have mouth pain, tooth decay, tooth loss, oral or throat cancer, oral sores, birth defects, gum disease, or other diseases that affect the oral area.***

- Acquiring proper oral health requires a dental team approach to comprehensive, high-quality, and cost-effective oral health care services.
- Early intervention and primary prevention should begin pre-conceptionally, include primary and health care providers, and continue throughout life.
- Children and adults with developmental disabilities should have access to early intervention and prevention measures, including fluoride varnish and dental sealants.
- Older adults with poor oral health may be at-risk for malnutrition.

(Source: *Healthiest Wisconsin 2020: Everyone Living Better Longer*)

The mouth is important to the overall health of the body. As well as health risks posed by oral conditions themselves, some oral conditions can reveal the existence of other ailments of the body. The oral cavity can also be a portal for infections to enter the body. Inflammation from some oral ailments can lead to premature delivery, increased risk for heart or cerebrovascular disease, respiratory infection, or decreased ability to control blood sugar.

The following focus areas are examined in this section:

- ☐ Youth Oral Health
- ☐ Fluoridation
- ☐ Dental Workforce
- ☐ Access to Oral Care

### **Youth Oral Health**

The Wisconsin Department of Health Services (DHS) presents data in a published work titled *2010 Burden of Oral Disease in Wisconsin*. This 2010 report indicates the percentage of children aged either 2-4 years or 6-8 years that have had either tooth decay experience or untreated tooth decay. The following table expresses the national and Wisconsin rates of tooth decay experience or untreated tooth decay.

### Percentage of Children Experiencing or Living with Untreated Tooth Decay

	National	Wisconsin
<b>Tooth Decay Experience – Children age 2-4 years</b>	24%	35%
<b>Tooth Decay Experience – Children age 6-8 years</b>	53%	55%
<b>Untreated Tooth Decay – Children age 2-4 years</b>	19%	26%
<b>Untreated Tooth Decay – Children age 6-8 years</b>	29%	20%

(Source: 2010 Burden of Oral Disease in Wisconsin)

The Wisconsin Department of Health Services (DHS) calculates the percentage of Head Start children in Wisconsin that have caries (tooth decay) experience, untreated decay, or early childhood caries, which is presented as follows.

### Percentage of Wisconsin Head Start Children with Caries Experience, Untreated Decay, or Early Childhood Caries, 2002-2003 and 2008-2009

	2002-2003	2008-2009
<b>Caries Experience</b>	48%	36%
<b>Untreated Decay</b>	24%	26%
<b>Early Childhood Caries</b>	22%	10%

(Source: 2010 Burden of Oral Disease in Wisconsin)

The 2010 report *Burden of Oral Disease in Wisconsin* provides the percentage of third grade children in Wisconsin that have untreated decay or caries experience. The percentages are listed below.

### Percentage of Wisconsin Third Grade Children with Caries Experience or Untreated Decay, 2001-2002 and 2007-2008

	2001-2002	2007-2008
<b>Caries Experience</b>	60%	55%
<b>Untreated Decay</b>	31%	20%

(Source: 2010 Burden of Oral Disease in Wisconsin)

Not only does poor oral health in children lead to future potential physical ailments, but poor oral health can lead to many lost school hours.

**“Tooth decay is the most prevalent chronic disease of childhood in the United States. Door County has a dental sealant program funded through the Children’s Health Alliance with Children’s Hospital. Every year, a fluoride varnish clinic is offered to children in Door County from the ages of 10 months through 10 years.”**

**– Mary Ann Zjala, BS, RDH Dental Coordinator, Ministry Door County Medical Center Dental Clinic**

Door County exemplifies many forms of collaboration in regards to oral health. In the interest of prevention, the Ministry Door County Medical Center Dental Clinic has recently started to contract with the University of Wisconsin Extension to provide, on dental clinic days, education to parents and children about nutrition and limiting sugar substances for optimal oral health.

## **Fluoridation**

Fluoride and dental sealants are important to the prevention of dental caries (tooth decay). The *2010 Burden of Oral Disease in Wisconsin* report provides data ranges expressing access to fluoridated water and Wisconsin dental sealant programs. In Door County, the percentage of the population that has a community water system with access to optimally fluoridated water is in the range of 75-100 percent. Outside of community water systems, access to fluoride is minimal. In Door County, the percentage of total county population with fluoridated water is in the range from 25-49.9 percent.

## **Dental Workforce**

The dental workforce is vital to receipt of quality oral care in Door County, in Wisconsin, and the nation. According to the *2010 Burden of Oral Disease in Wisconsin* report, Door County does not have a Health Professional Shortage Area designated for providing dental services to low-income populations. The State of Wisconsin, as of April 2010, had 43 dental Health Professional Shortage Area designations. Some counties may not qualify for Health Professional Shortage Area designations depending upon low income populations and available services.

Wisconsin rates are similar to the nation in dentist-to-population ratio. Wisconsin has 3,142 active dentists, 2,891 active dental hygienists, and 2,465 active dental assistants. Of active dentists, there are 84% that work full-time. Compared to the nation, Wisconsin dentists work 9% fewer hours per year and Wisconsin has proportionately fewer specialists than the rest of the nation.

## **Access to Oral Care**

Access to oral care is important to oral health for individuals. The 2010 report on *Burden of Oral Disease in Wisconsin* offers data measuring access to oral care. According to this report, in 2008, 73 percent of Wisconsin adults reported having a dental visit in the past 12 months compared to a national average of 71 percent. In this state and national data, racial and ethnic disparities were found to exist with white adults more likely to report a dental visit. The Wisconsin Pregnancy Risk Assessment Monitoring System also collected data on access to oral care. During their most recent pregnancy, 23% of pregnant women needed to see a dentist for a problem. During pregnancy, 48% went to a dentist or dental clinic. Forty-two percent of pregnant women admitted they were told by dental or other health care workers how to care for their teeth.

According to the *2010 Burden of Oral Disease in Wisconsin* report and data collected from the Behavioral Risk Factor Surveillance System, 76.7-84.2 percent of adults in

At this time, in Door County, dental services are limited for adults who are Medicaid recipients or are uninsured. An adult with Medical Assistance would have to travel a distance to find dental care. In the event of requiring emergency dental care, there is a fund through Ministry Door County Medical Center that is available for one time emergency dental care. Dental need has to be quite heightened to be considered an emergency for dental care. Access to dental care is not only a problem in this area, but across the state. Mary Ann Zjala, BS, RDH Dental Coordinator, Ministry Door County Medical Center Dental Clinic, reports that one of the local dentists at her agency went to help at a clinic in Wausau to provide dental care to underserved clients. It was reported that there were 2,000 people from around the State of Wisconsin lining up in Wausau looking for

**Reimbursement is \$0.38 or less for every \$1.00 of dental care cost."**

– Mary Ann Zjala, BS, RDH Dental Coordinator, Ministry Door County Medical Center Dental Clinic

## GRADING THE STATES

Legend:

- A 6-8 benchmarks
- B 5 benchmarks
- C 4 benchmarks
- D 3 benchmarks
- F 0-2 benchmarks

Map showing the number of benchmarks for disadvantaged children by state:

- WA, OR, ID, NV, CA, UT, AZ, NM, TX, AK, HI
- MT, WY, ND, SD, NE, KS, MN, IA, MO, AR, LA, MS, AL, GA, SC, NC, PA, NY, VT, NH, MA, RI, CT, DE, MD, DC
- ME, VT, NH, MA, RI, CT, DE, MD, DC
- WA, OR, ID, NV, CA, UT, AZ, NM, TX, AK, HI

Source: Pew Center on the States, 2011.

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fluoridated community water supplies, paying medical providers for early preventive dental health care, and tracking data on children's dental health. Conversely, the State of Wisconsin has not met the benchmark for policies regarding high risk schools with sealant programs, Medicaid-enrolled children receiving dental care, dentist median retail fees reimbursed by Medicaid, and authorization of new primary care dental providers.

Mary Ann Zjala, in her involvement with the Ministry Door County Medical Center Dental Clinic says that they are able to serve children aged 2 through 18 years who are Medicaid recipients, are uninsured, or do not have access to a dentist. Zjala declares that clinic hours and days are limited and therefore, only about one third of children that could be seen are able to be seen at this clinic. Zjala reports there is an option available for Door County children requiring sedation for dentistry by having the child taken to a Green Bay, Wisconsin hospital for service.

## **KEY FINDINGS**

- The Ministry Door County Medical Center Dental Clinic has collaborated with University of Wisconsin Extension to provide nutrition education conducive to oral health.
- Door County has a funded dental sealant program available to children.
- There is a fluoride varnish clinic held annually for children aged 10 months through 10 years in Door County.
- Total county population with access to fluoridated water is between 25 and 49.9 percent.
- The Wisconsin Behavioral Risk Factor Surveillance System indicates between 76.7 and 84.2 percent of adults in Door County have received a dental cleaning in the past year.
- Less than 20% of adult Medicaid members in Door County receive dental service.
- There are no dentists in Door or Kewaunee counties that accept new Medicaid patients due to low reimbursement rates.
- The Ministry Door County Medical Center Dental Clinic serves a limited number of children aged 2 years through 18 years who are Medicaid recipients, uninsured, or do not have access to a dentist.

## SECTION 8: PHYSICAL ACTIVITY

### Focus Area Definition

***Physical activity means any body activity that enhances or maintains physical fitness and overall health. Public health strategies focus on environmental and policy changes (e.g. active community environment initiatives, urban planning, safety enforcement, trails and sidewalks) to reach large sections of the population.***

***Physical activity requires specific time set aside for exercise, as well as activity that can be made part of a person's daily routine (lifestyle activity). Regular physical activity has been shown to reduce the risk of certain chronic diseases; including high blood pressure, stroke, coronary artery disease, Type 2 diabetes, obesity, colon cancer, and osteoporosis.***

***Physical activity recommendations include strategies to make physical activity the easy choice. This can be accomplished by creating opportunities for children, adults, and older adults to be active where they live, work, learn, and play.***

***Adults need 150 minutes of moderate aerobic activity or 75 minutes of intense aerobic activity per week, preferably spread throughout the week. Adults should also do strengthening activities two or more days per week. Children ages 6-17 years of age need 60 minutes of aerobic activity per day. This includes vigorous activity and strengthening activities three days per week each. Frail older adults need guided physical exercise to improve strength, prevent falls, improve cardiovascular performance, and restore resilience and social connection.***

***The built environment and overall environment should promote and support physical activity for all.***

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

The following focus areas are examined in this section:

- ☐ Physical Activity
- ☐ Physical Inactivity

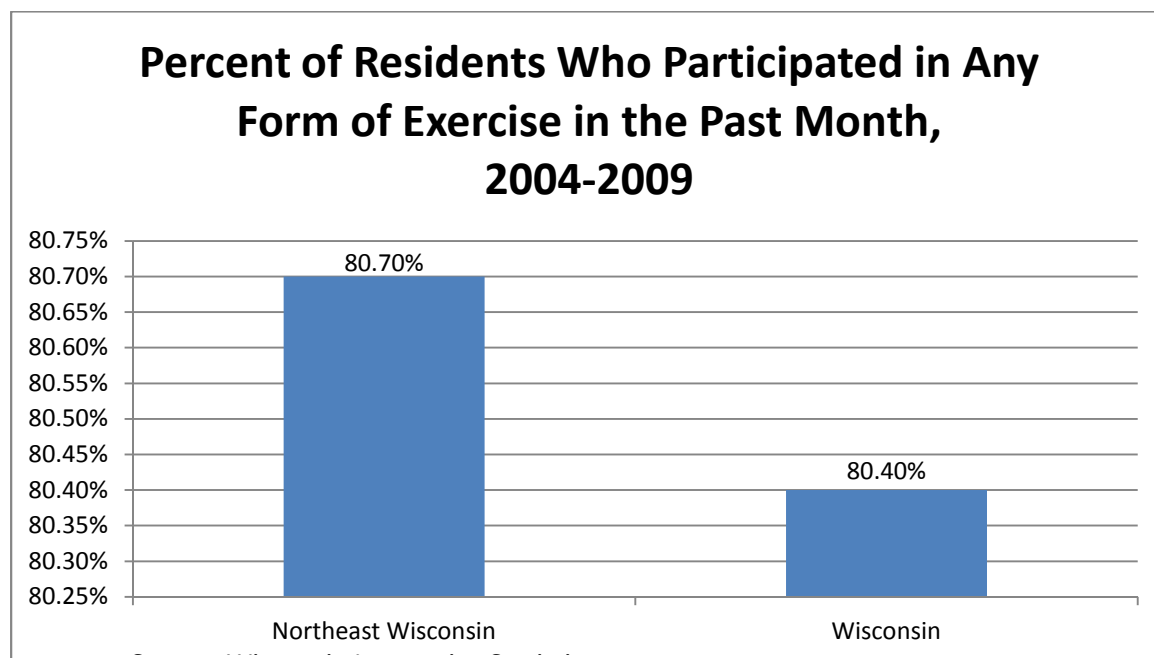
### **Physical Activity**

The importance of physical activity on overall health is well documented. The Centers for Disease Control and Prevention (CDC) reports that regular physical activity is one of the most important things individuals can do to improve their health. Activity can help control weight and reduce some diseases including cardiovascular disease, Type 2



diabetes, and some cancers. It can also strengthen bones and muscles as well as improve mental health and mood. Research shows persons who exercise regularly may increase their lifespan.

The CDC recommends that adults should engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity spread throughout the week. In addition to intense activity, muscle-strengthening activities involving all major muscle groups should be done on two or more days per week. From Wisconsin Interactive Statistics on Health, the graph below shows that between 2004-2009, 80.7% of northeast Wisconsin residents and 80.4% of Wisconsin residents participated in some form of exercise in the past 30 days.



(Source: Wisconsin Interactive Statistics on Health)

Wisconsin Interactive Statistics on Health also reported that between 2005 and 2007, 83.1% of Door County residents exercised in the last 30 days.

The Centers for Disease Control lists physical activity recommendations for adults as performing 30 minutes of moderate activity on at least five days per week or 20 minutes of vigorous activity on at least three days per week. These recommendations were taken into account in data presented by the Wisconsin Division of Public Health *Obesity, Nutrition, and Physical Activity in Wisconsin* report. Data presented in the report from 2001, 2003, and 2005 Behavioral Risk Factor Surveillance Surveys shows an increase in individuals who met physical activity recommendations. In 2001, 52.3% of Wisconsin adults met recommendations. In 2003, 54.7% met recommendations. In 2005, 56.7% met physical activity recommendations.

The *Youth Risk Behavior Survey* reports an increase from 2009 to 2010 in the percentage of high school students who were physically active for a total of at least 60

minutes per day for five or more days before the survey. In 2009, 48.5% of students reported being active, while in 2010, 51.6% reported activity. The same survey reported that 75.1% of middle school students were physically active for a total of at least 60 minutes the day before the survey.

Door County has a variety of recreational and exercise facilities which provide activities and programming designed to meet the needs of Door County residents. The county, through the parks and water systems, offers an abundance of outdoor activities for any season.

### **Physical Inactivity**

The Wisconsin Department of Health Services, Division of Public Health provides a report entitled *Obesity, Nutrition, and Physical Activity in Wisconsin* which includes information about physical inactivity in Wisconsin. According to the report, the northeastern region of Wisconsin has the largest percentage of obese individuals at 27.3%. In the northeast region of Wisconsin, between half and three-quarters of adults are overweight or obese. The report states obesity rates in Door County are between 14.2 to 22.1 percent. Rates of obesity may be related to physical inactivity.

In the report *Obesity, Nutrition, and Physical Activity in Wisconsin*, television viewing time is an item that influences physical activity levels. Television or other screen time has been measured by the Youth Risk Behavior Surveillance System and shows a large number of students are exceeding the recommended two hours a day of television or other screen time. Trouble with excess screen time has been attributed to advertisements not recommending activity, lack of activity while watching television, and tendency to eat inappropriate amounts of less nutritive foods during programming. Research showed a direct correlation between television time and obesity.

Physical inactivity was also measured by the Wisconsin Division of Public Health report. Data in the report from 2004 to 2006 Behavioral Risk Factor Surveillance System indicates adults above the age of 70 are most likely to be physically inactive. Thirty-four point three (34.3) percent of adults above age 70 claimed to be inactive compared to the next largest percentage of inactive adults, where 22.3% aged 60 to 69 years claimed to be inactive. In this report, inactivity was measured as having no physical activity in the past 30 days. From 2004 to 2006 in the Behavioral Risk Factor Surveillance System, data compares the physical inactivity of Wisconsin counties. Door County is ranked in the upper middle quarter in prevalence of physical inactivity (highest quarter designating most physically inactive). Door County was rated between 20.3 and 23.3 percent inactive.

## KEY FINDINGS

- Percentage of Door County residents engaging in physical activity exercise is higher than the State and northeast Wisconsin percentages.
- Reported physical activity has been increasing among students and adults in recent years.
- Door County offers a natural environment to enjoy outside activities, but also facilities for indoor activities.
- Adults above the age of 70 are less likely to partake in physical activity.

## SECTION 9: REPRODUCTIVE AND SEXUAL HEALTH

### Focus Area Definition

***Reproductive and sexual health includes factors affecting physical, emotional, and social health related to reproduction and sexuality throughout life. Reproductive and sexual health is an important part of individual and public health that may be maintained by access to reproductive and sexual health education and culturally competent medical services addressing the needs of a diverse population. Medical services include screening for and treatment of sexually transmitted infections, HIV testing, and resources for care. Pregnancy related medical services include: care before pregnancy, care during pregnancy, and care from the end of the pregnancy to the next. Achieving reproductive and sexual health requires access to education and policies, but also supportive community attitudes toward healthy sexuality, positive environments, and constructive public policies supporting individuals and communities.***

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

Reproductive and sexual health includes lack of violence, disease, or dysfunction as well as physical, emotional, and social health related to reproduction and sexuality. For individuals to practice reproductive and sexual health there must be an affirmative approach to sexuality that encourages responsibility throughout life.

The following focus areas are examined in this section:

- ☐ Reproductive Health
- ☐ Infant Mortality
- ☐ Sexual Behavior Among Students
- ☐ Teen Births/Pregnancies
- ☐ Sexually Transmitted Infections

### **Reproductive Health**

The Wisconsin Department of Health Services (DHS) maintains data on birth records that includes number of births, births to women with late or absent prenatal care, home births, births to women reporting smoking or alcohol use during pregnancy, low birth weight, preterm births, and births with infant conditions.

The following table shows selected birth characteristics for Door County from 2004 through 2009. The total number of births in the county increased overall from 2004 through 2009. Trends show that the number of infants born with low birth weight increased from 2004 through 2009. Total births to women reporting smoking also increased from 2004 through 2009.

### Birth Characteristics in Door County, 2004-2009

	2004	2005	2006	2007	2008	2009
<b>Total Births in Door County</b>	231	252	240	239	245	266
<b>Total Births to Women with Late or No Prenatal Care/ Percentage</b>	2 <b>0.9%</b>	5 <b>2.0%</b>	3 <b>1.2%</b>	0 <b>0%</b>	5 <b>2.0%</b>	3 <b>1.1%</b>
<b>Total Home Births</b>	1	1	4	2	3	4
<b>Total Births to Women Reporting Smoking During Pregnancy / %</b>	27 <b>11.7%</b>	35 <b>13.9%</b>	25 <b>10.4%</b>	31 <b>13.0%</b>	30 <b>12.2%</b>	35 <b>13.1%</b>
<b>Total Births to Women Reporting Alcohol Use During Pregnancy / %</b>	3 <b>1.3%</b>	7 <b>2.8%</b>	7 <b>2.9%</b>	1 <b>0.42%</b>	3 <b>1.2%</b>	4 <b>1.5%</b>
<b>Total Infants Born with Birth Weight Less than 5 lbs. 7 oz. / %</b>	9 <b>3.9%</b>	16 <b>6.3%</b>	6 <b>2.5%</b>	13 <b>5.4%</b>	14 <b>5.7%</b>	15 <b>5.6%</b>
<b>Total Infants Born at Less than or Equal to 35 Weeks Gestation / %</b>	9 <b>3.9%</b>	17 <b>6.7%</b>	15 <b>6.2%</b>	13 <b>5.4%</b>	16 <b>6.5%</b>	11 <b>4.1%</b>
<b>Total Infants Transferred to NICU or Other Hospital / %</b>	11 <b>4.8%</b>	17 <b>6.7%</b>	9 <b>3.7%</b>	14 <b>5.9%</b>	17 <b>6.9%</b>	13 <b>4.9%</b>
<b>Total Infants Born with Abnormal Conditions of Newborn / %</b>	12 <b>5.2%</b>	13 <b>5.2%</b>	7 <b>2.9%</b>	5 <b>2.1%</b>	11 <b>4.5%</b>	14 <b>5.2%</b>
<b>Total Infants Born with Congenital Anomaly of Newborn / %</b>	6 <b>2.6%</b>	5 <b>2.0%</b>	1 <b>0.4%</b>	4 <b>1.7%</b>	5 <b>2.0%</b>	8 <b>3.0%</b>

(Source: Wisconsin Department of Health Services)

### Infant Mortality

Door County Public Health profiles provide data on infant mortality. Infant mortality is classified as the death of an infant before the first birthday. The following table shows the number of neonatal infant deaths, post-neonatal infant deaths, and the total number of infant deaths from 1998 to 2008. The following graph shows the trends in infant mortalities in Door County according to the Door County Public Health profiles.

### Number of Infant Deaths in Door County, 1998-2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Neonatal</b>	1	---	1	2	2	---	0	3	---	2	1
<b>Post-neonatal</b>	1	---	1	1	1	---	1	0	---	1	0
<b>Total Infant Deaths</b>	2	---	2	3	3	---	1	3	---	3	1

(Source: Door County Public Health Profiles)

### Sexual Behavior Among Students

The 2009 Youth Risk Behavior Survey reports sexual behaviors of Wisconsin high school students. The following table from the Youth Risk Behavior Survey reports sexual behaviors among students having intercourse in the past three months in Wisconsin.

### **Youth Risk Behavior Survey: Sexual Behaviors, 2009**

	<b>Males</b>	<b>Females</b>
<b>Had sexual intercourse</b>	27%	32%
<b>Used alcohol or drugs before last sexual intercourse</b>	19%	14%
<b>Condom use at last sexual intercourse</b>	69%	59%
<b>Used birth control pills at last sexual intercourse</b>	20%	33%

(Source: Wisconsin Youth Risk Behavior Survey)

The 2009 Youth Risk Behavior Survey also indicates changes in sexual intercourse in Wisconsin from 1993 to 2009. The table below shows the following: the percentage of students who have had intercourse before age 13, have ever had sex, have had sex in the past three months, have had sex in the past three months and used a condom, have had sex in the past three months and used birth control pills, have had sex in the past three months and drank or used drugs before intercourse, or have had sex with more than four people during their life.

### **Youth Risk Behavior Survey: Sexual Behaviors, 1993-2009** **Percentage of Students Surveyed Reporting Sexual Behavior**

	<b>1993</b>	<b>1997</b>	<b>1999</b>	<b>2001</b>	<b>2003</b>	<b>2005</b>	<b>2007</b>	<b>2009</b>
<b>Had sex before age 13</b>	7.30	5.50	4.30	4	2.80	3.90	4.50	3.40
<b>Had sex with more than 4 people during their life</b>	14.30	11.40	10.30	10.20	8.90	10.40	12.70	9.90
<b>Had sex in past 3 months and drank or used drugs before last intercourse</b>	21.70	25.80	23.90	25.70	25.80	22.90	26.60	16.50
<b>Had sex in past 3 months and used birth control pills</b>	22	23	25	26	25	23	26	27
<b>Sex in the past 3 months</b>	33	29	31	29	27	30	33	29
<b>Ever had sex</b>	47	41	42	39	37	40	45	41
<b>Had sex in past 3 months and used condom</b>	58	58	58	59	65	65	61	64

(Source: Wisconsin Youth Risk Behavior Survey)

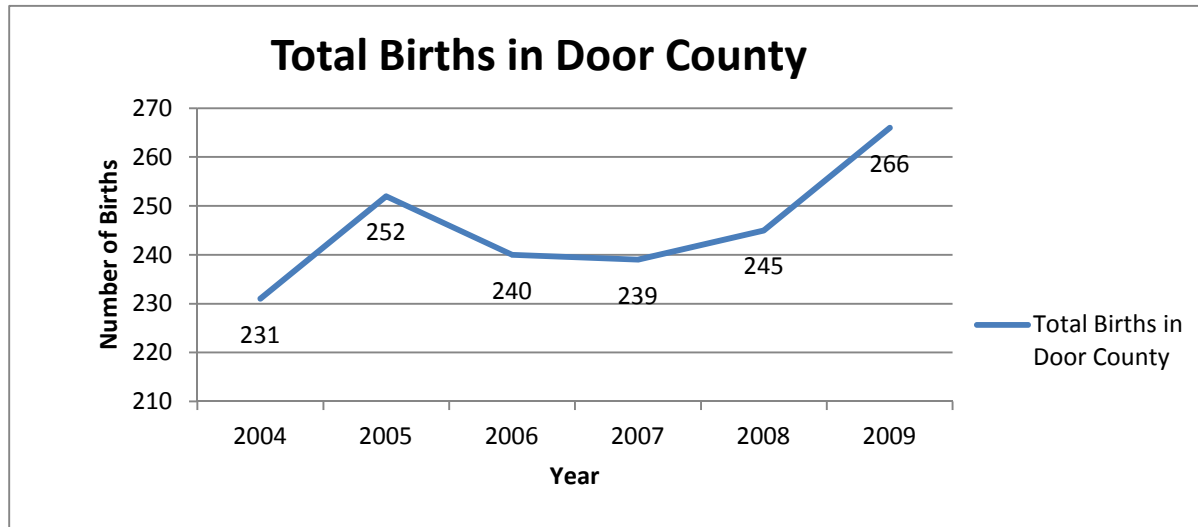
\*1995 no data presented

The 2010 Youth Risk Behavior Survey for middle school students shows that 32.2% of middle school students feel it is important to delay sexual intercourse until they are married. Of Door County students in 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grades, 2.9% reported they have had sexual intercourse.

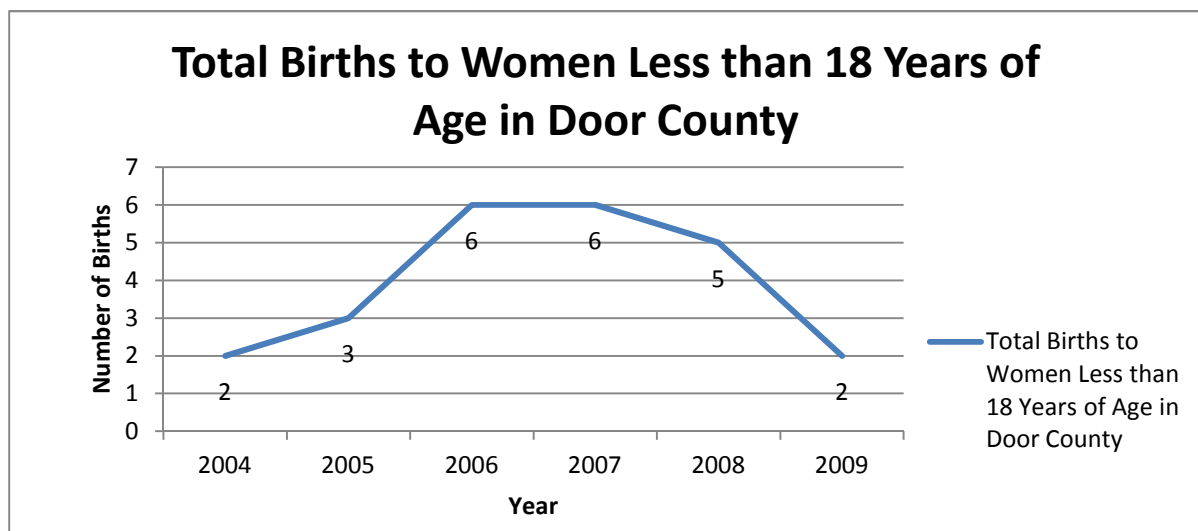
In 2010, a Youth Risk Behavior Survey was also performed for Door County high school students. Of all Door County high school students surveyed, 36.9% reported they have had intercourse. Three percent of high school students surveyed say they had sexual intercourse before age 13. According to the survey, 27.3% of students say they had intercourse with at least one person in the three months before the survey.

## Teen Births/Pregnancies

Data from the Wisconsin Department of Health Services (DHS) shows the number of total births to women less than 18 years of age. The following graphs show the total number of births in Door County which can be compared to the number of births to women less than 18 years of age.



(Source: Wisconsin Department of Health Services)



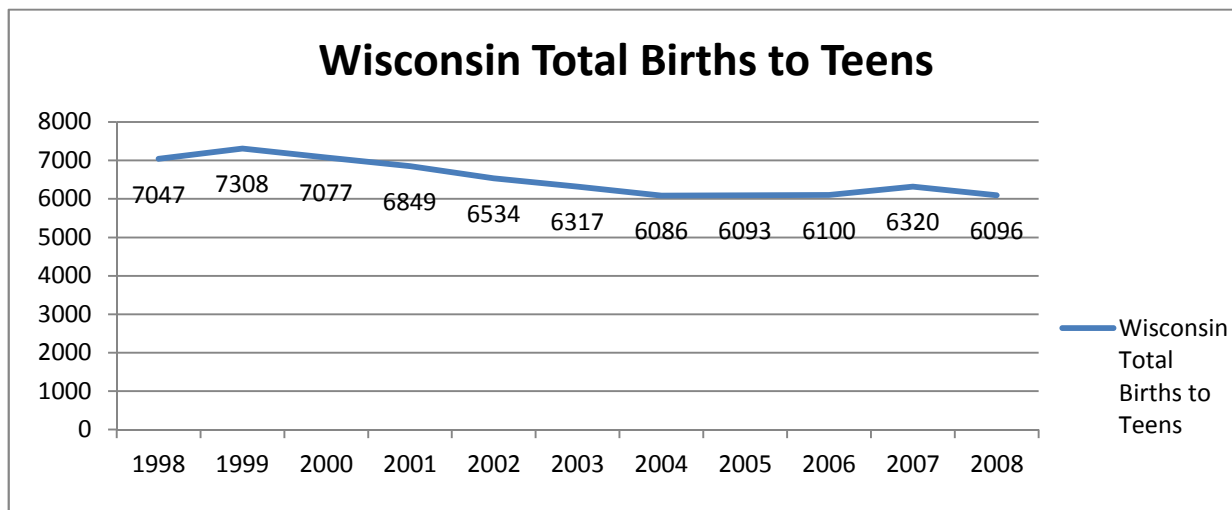
(Source: Wisconsin Department of Health Services)

The chart depicts that total birth rates in Door County started to decrease in 2005 and then eventually began to rise again. The teen birth rate in Door County appears to have been decreasing slightly since 2007.

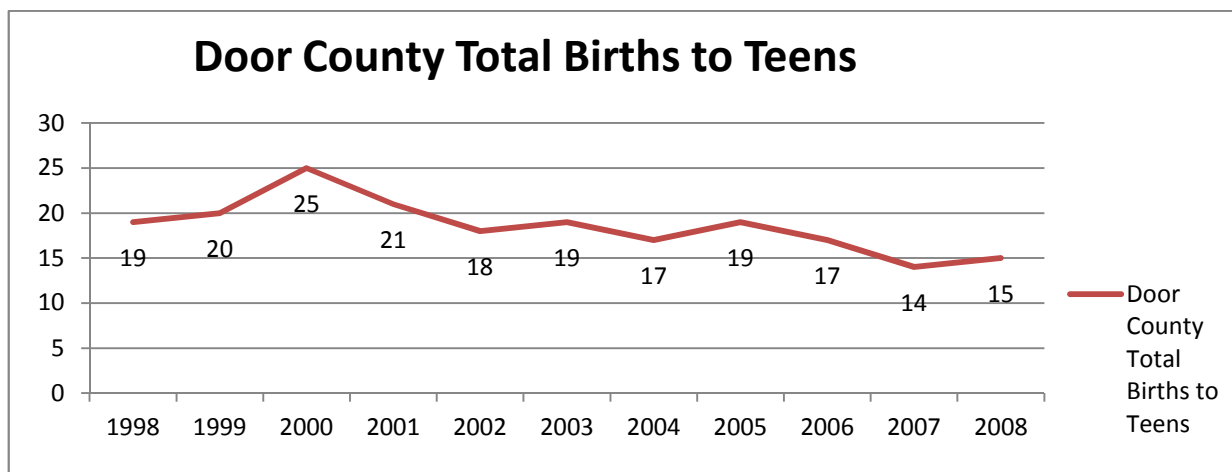
The *2008 Wisconsin County Health Rankings* reports that Door County is ranked number 27 out of 72 counties for teen births per 1,000 females aged 15 to 19 years. In

Door County, there are 21.5 teen births per 1,000 teen females. The State of Wisconsin reports an average of 30.9 births per 1,000 teen females.

A 2008 *Births to Teens in Wisconsin* report lists the number of births to teens by county of residence from 1998 to 2008. This report includes all females under the age of 20 years. The following charts depict these findings and show the rates of decline in births to teens in Wisconsin and Door County.



(Source: *Births to Teens in Wisconsin*)



(Source: *Births to Teens in Wisconsin*)

## **Sexually Transmitted Infections**

According to the 2008 *Wisconsin County Ranking Health Report*, sexually transmitted infections are classified as the average annual number of reported cases of chlamydia, gonorrhea, syphilis, and genital herpes per 100,000 in the population. In 72 counties, the average number of cases per 100,000 in Wisconsin is 498 cases. Counties in Wisconsin range from 51.8 to 2,352.2 cases per 100,000 in population. The 2008 report rates Door County as 35 out of 72 counties. There were 188.9 cases per 100,000



individuals in population. The report used data from 2003 to 2006. The sum of the population in Door County from 2003 to 2006 was 115,435 people.

Door County Health profiles record the number of cases of sexually transmitted infections per year. The following table depicts the number of cases of chlamydia, genital herpes, gonorrhea, and syphilis from 1999 to 2008 according to Door County Health profiles. Cases of Chlamydia have generally increased over a ten year span.

<b>Cases of Sexually Transmitted Infections in Door County, 1999-2008</b>										
	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
<b>Chlamydia</b>	22	10	13	35	23	44	59	32	47	59
<b>Genital Herpes</b>	13	9	17	12	9	12	14	11	12	---
<b>Gonorrhea</b>	<5	<5	9	5	<5	5	<5	<5	<5	<5
<b>Syphilis</b>	0	0	0	0	0	0	0	0	0	<5

(Source: Door County Public Health Profiles)

## KEY FINDINGS

- The percentage of infants born with low birth weight in Door County has averaged from 4—6 % from 2004 to 2009.
- The percentage of births to women reporting smoking in Door County has averaged from 10—13 % from 2004 to 2009.
- Total number of births in Door County has increased from 2004 through 2009, from 231 to 266.
- Almost 37% of Door County high school students report they have had sexual intercourse.
- Births to women aged less than 18 years of age has decreased from 2007 to 2009.
- Door County births to teens aged less than 20 years has decreased from 2005 to 2008.
- Chlamydia cases in Door County have increased overall in a ten year span from 1999 to 2008.
- From 2003 to 2006, Door County had a rate of 188.9 sexually transmitted disease cases per 100,000 individuals, compared to the Wisconsin State rate of 498 per 100,000 population.

## SECTION 10: TOBACCO USE AND EXPOSURE

### Focus Area Definition

**Tobacco use and exposure means improving health by preventing tobacco abuse, promoting tobacco-dependent treatment, protecting all residents and visitors from exposure to secondhand smoke, and identifying and eliminating tobacco-related disparities. This is accomplished by partnering with state and local leaders to implement a research-based, comprehensive, tobacco prevention and control plan.**

**Tobacco use and exposure represent the leading overall cause of death in the U.S. and Wisconsin and a major economic burden. Each year in Wisconsin 8,000 people die of tobacco-related illnesses; \$2.2 billion is paid in direct health care costs; and \$1.6 billion attributed to lost productivity.**

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

**Last December, the CDC released the 2010 Report of the Surgeon General: How Tobacco Smoke Causes Disease. The report concludes that:**

- Exposure to tobacco smoke, even occasional smoking or secondhand smoke, causes immediate damage to the body that can lead to serious illness.
- Cellular damage and tissue inflammation from tobacco smoke are immediate, and repeated exposure weakens the body's ability to heal the damage.
- The design and contents of tobacco products make them more attractive and addictive.
- There is no safe cigarette. Changing cigarette designs have not reduced overall disease risk among smokers and may have hindered prevention and cessation efforts.
- Quitting smoking at any age and at any time is beneficial.

(Source: 2010 Report of the Surgeon General: How Tobacco Smoke Causes Disease)

The following focus areas are examined in this section:

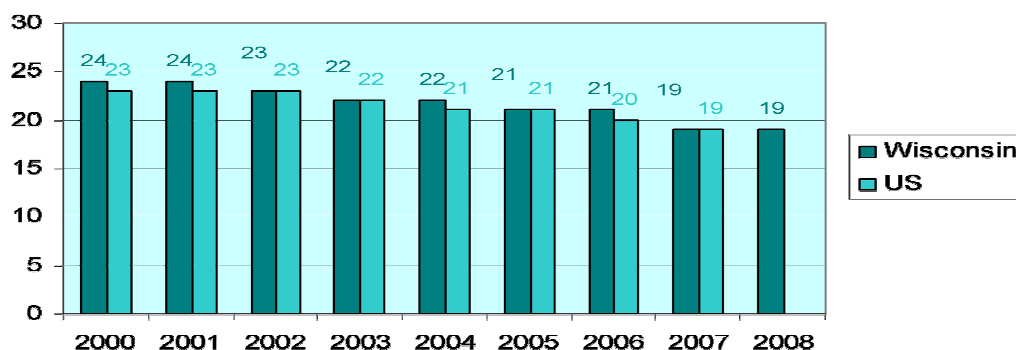
- ☐ Smoking Rates and Smoking-Related Deaths
- ☐ Health Care Costs Attributed to Smoking
- ☐ Youth Smoking
- ☐ Smoking and Pregnancy
- ☐ Smoke-Free Air

## **Smoking Rates and Smoking-Related Deaths**

Nationally, the estimated percentage of persons 18 years of age or older that report smoking regularly has decreased from 22.8% in 2000 to 17.9% in 2010. Wisconsin ranked 31<sup>st</sup> of the 50 states for its smoking prevalence of 18.7%. The 2010 national range of smoking prevalence among states varied from 9.8% (Utah) to 25.6% (Kentucky). (Source: *America's Health Rankings Smoking Prevalence*)

The table below illustrates how the percentage of adults that report being a current cigarette smoker has declined in recent years.

### **Percentage of Adults in Wisconsin Reporting they are a Current Cigarette Smoker**



Source: Wisconsin Department of Health Services,  
Division of Public Health.  
The 2008 Wisconsin Behavior Risk Factor Survey (BRFSS)

The *Burden of Tobacco in Wisconsin* is a collaborative report of the University of Wisconsin Tobacco Surveillance and Evaluation Program, the American Cancer Society, and the Wisconsin Division of Public Health's Tobacco Prevention and Control Program. The following tables are an excerpt from this report released in March 2010. The top table depicts the number and rate of smokers in Wisconsin compared to the number and rate in Door County. The bottom table reveals deaths related to smoking in Wisconsin compared to Door County.

Smokers in Wisconsin and Door County				
	Wisconsin		Door County	
	# of Smokers	Percent Smokers	# of Smokers	Percent Smokers
Total Number of Smokers	915,379		4,070	
Adult (18 and Over)	841,143	19.5%	3,744	16.5%
High School Youth	64,897	20.7%	289	20.7%
Middle School Youth	9,339	4.3%	37	4.3%
Maternal Smoking	10,843	14.9%	31	12.5%

Deaths Directly Related to Smoking					
Cause of Death	Wisconsin		Door County		
	Average Annual Deaths	Due to Smoking	Average Annual Deaths	Due to Smoking	% Due to Smoking
Lung Cancer	2,845	2,242	17	14	82%
Other Smoking-Related Cancers	2,158	736	15	4	27%
Cardiovascular Disease	14,894	2,054	106	13	12%
Respiratory Disease	3,396	1,934	19	12	63%
Other Causes (not associated with smoking)	22,755	0	133	0	0%
All Causes	46,048	6,966	291	42	14%

\*Note: Adult smoking estimates from BRFSS 2006-2008; Youth smoking estimates based on state level YTS, 2008; Maternal smoking estimates from WISH, 2007; Deaths related to smoking are based on 2003-2007 mortality data.

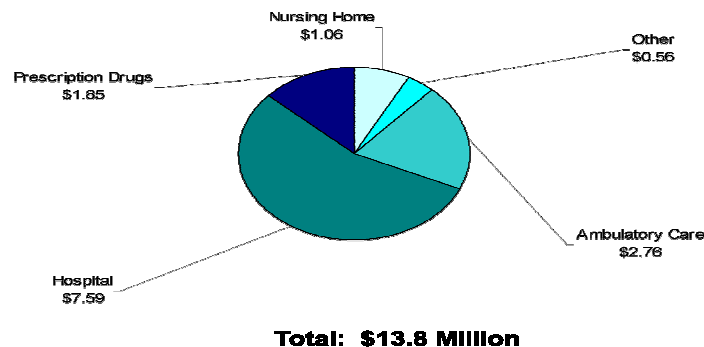
(Source: *The Burden of Tobacco in Wisconsin*, March 2010)

Data in the table above reflects that in Door County, approximately 42 individuals die annually from illnesses directly related to smoking. This is approximately 14% of all deaths in Door County each year. Also, the table shows that smoking causes 82% of all lung cancer deaths and 12% of deaths from cardiovascular disease in Door County.

## Health Care Costs Attributed to Smoking

The pie chart below taken from *The Burden of Tobacco in Wisconsin* shows the 2007 division of 13.8 million dollars in health care costs in Door County.

**Smoking Attributable Health Care Costs in Door County, 2007  
(in Millions of Dollars)**

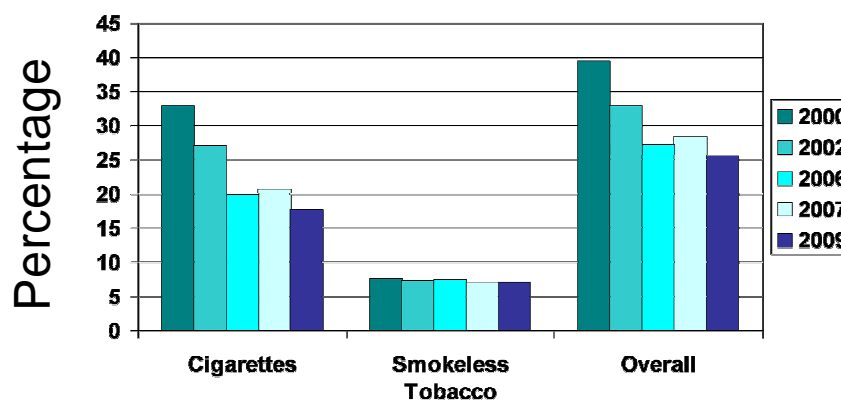


(Source: *The Burden of Tobacco in Wisconsin*, March 2010)

## Youth Smoking

The following graph looks at the percentage of Wisconsin high school students reporting use of tobacco in the last 30 days. The overall use of tobacco among high school students in Wisconsin decreased from 2000 to 2009.

**Current Use of Any Tobacco Product Among Wisconsin  
High School Students (Grades 9-12) 2000-2009**



Source: Tobacco Prevention and Control Program.  
Division of Public Health, Wisconsin Department of Health Services.  
Wisconsin Tobacco Facts 2010.

The *Youth Risk Behavioral Survey* was administered in the fall of 2010 to a total of 708 Door County students in grades 9-12. (Washington Island School's data was not available when results were compiled). The following table shows survey results regarding tobacco use. Door County scored healthier than the State of Wisconsin for most categories. However, Door County had a higher percentage of students who used chewing tobacco, snuff, or dip on at least one of the 30 days before the survey. (Keep in consideration that Wisconsin and United States data is data for 2009. This may account for differences between Door County when compared to the state and national data.)

#### **Youth Risk Behavior Survey – High School Students**

<b>Question</b>	<b>2010 Door County Results</b>	<b>2009 Wisconsin Results</b>	<b>2009 United States Results</b>
Percentage of students who ever tried cigarette smoking, even one or two puffs	35.3%	43.6%	46.3%
Percentage of students who smoked a whole cigarette for the first time before age 13 years	8.2%	9.4%	Not Available
Percentage of students who smoked cigarettes on at least 1 of the 30 days before the survey	15.4%	16.9%	19.5%
Among students who reported current cigarette use, the percentage who smoked more than 10 cigarettes per day on the days they smoked	2.7%	6.2%	7.8%
Percentage of students who smoked cigarettes on school property on at least 1 of the 30 days before the survey	3.4%	4.8%	Not Available
Percentage of students who ever smoked at least on cigarette every day for 30 days	9.9%	11.3%	11.2%
Percentage of students who used chewing tobacco, snuff, or dip on at least 1 of the 30 days before the survey	11.7%	8.5%	8.9%
Percentage of students who smoked cigars, cigarillos, or little cigars on at least 1 of the 30 days before the survey	14.5%	14.9%	14.0%

(Source: *Youth Risk Behavior Survey*)

The **Wisconsin Wins** (WI Wins) campaign is a science-based, state-level initiative designed to decrease youth access to tobacco products. The WI Wins campaign was launched in the spring of 2002 as part of a comprehensive approach to preventing youth access to tobacco products. Federal regulations require each state to annually conduct random, unannounced inspections of tobacco vendors to assess their compliance with the state's access law. Research has demonstrated a relationship between youth tobacco use and access to tobacco products.

The Wisconsin Department of Health Services contracts with local partners to conduct investigations to establish retailer compliance with the law. Local initiatives also include retailer education and training, media outreach, and community education.

WI Wins uses positive reinforcement to reduce illegal tobacco sales to minors. It congratulates local clerks who do not sell tobacco to youth, while educating those who sell tobacco illegally. This approach creates community pride by reducing youth access to tobacco products and provides youth a chance to make a difference in their community.

Statewide sales percentages have declined since the program began. Sales percentages decreased from 20% in 2002 to 4.7% in 2010. In Door County, there were 49 Wisconsin Wins checks completed, resulting in only one vendor performing illegal sales in 2010. The percentage of sales was 2%.

(Source: Wisconsin WINS, DHS)

On May 1, 2011 Wisconsin Wins compliance checks were completed in Door County with 100% compliance. (Report from Terry Vogel, Door County Sheriff)

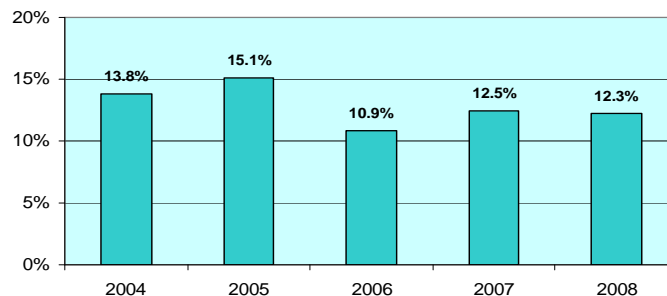
### **Smoking and Pregnancy**

Smoking during pregnancy increases the risk of pregnancy complications, premature delivery, low birth weight infants, stillbirth, and sudden infant death syndrome (SIDS). Premature delivery is when a baby is born too early. Low birth weight is when a baby is born weighing less than 5 ½ pounds. Babies born too early or too small are not as healthy. Babies whose mothers smoke are about 3 times more likely to die from SIDS.

(Source: 2010 Report of the Surgeon General: How Tobacco Smoke Causes Disease)

The graph below shows the percentage of women in Door County who reported smoking during their pregnancy from 2004 through 2008. The percentages decreased from 2005 to 2006, then increased from 2006 to 2008.

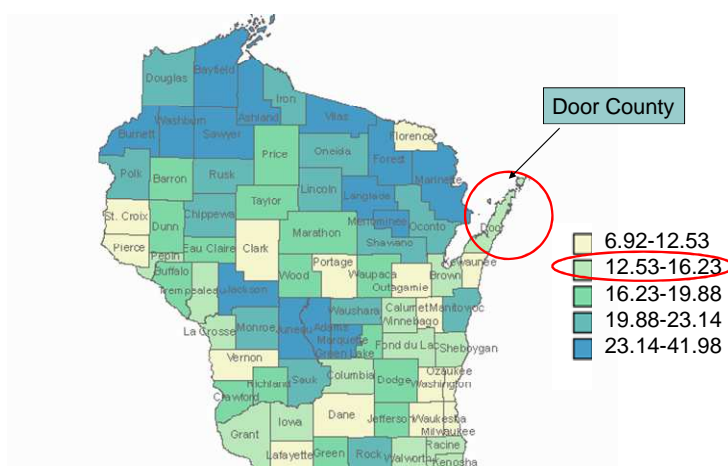
## Women Reporting Smoking During Pregnancy Door County, 2004-2008



Source: (WISH) data query system, <http://dhs.wisconsin.gov/wish>

The following graphs contain maps that compare Door County to other counties in Wisconsin from 2004 through 2008. The first map shows the percentage of mothers reporting smoking during pregnancy. The second map shows the percent of babies born with a low birth weight (less than 5lbs. 8oz.).

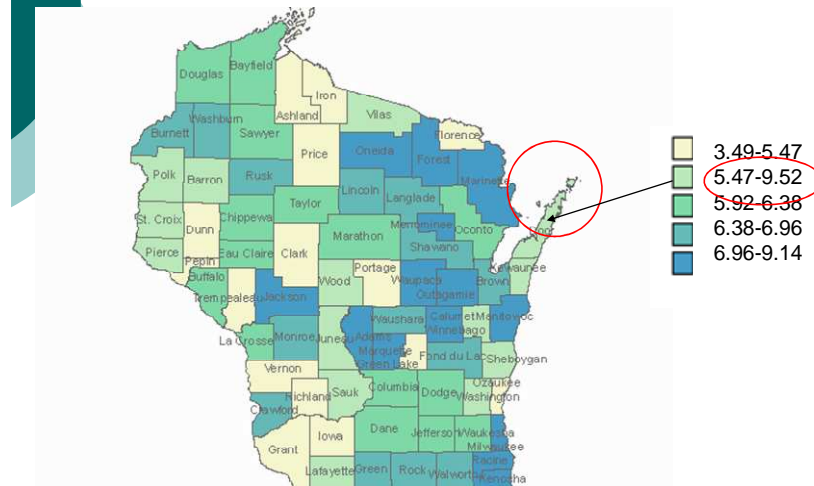
## 2004-2008 Percent of Births Mothers Who Report Smoking During Their Pregnancy – by County of Residence



(Source: Wisconsin Interactive Statistics on Health, Bureau of Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services)



### 2004-2008 Percent of Low Birthweight Births Less Than 2500 Grams (5 lbs. 8oz.)



(Source: Wisconsin Interactive Statistics on Health, Bureau of Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services)

**First Breath** is a program that helps pregnant women in Wisconsin quit smoking by integrating cessation strategies into existing prenatal care models, including public health services and private healthcare clinic appointments. Wisconsin ranks 18th worst in the nation in rates of smoking during pregnancy. The First Breath Program excels in its efforts to help pregnant women in Wisconsin quit smoking. Since 2003, over 10,000 women have enrolled in First Breath. In 2008, First Breath was able to meet or exceed its smoking cessation and reduction goals. The average quit rate for the First Breath Program statewide was 34% in 2008 and 36.4% in 2009.

Door County Public Health provides the First Breath Program. In 2009, 25.6% of women in the First Breath program at Door County Public Health quit smoking during pregnancy (of the women who completed a prenatal follow-up form). One hundred and thirteen women have enrolled in First Breath in Door County since 2003.

(Source: First Breath: Wisconsin Women's Health Foundation)

### Smoke-Free Air

Of important note is the fact that Wisconsin's statewide Smoke-Free Air law went into effect on July 5, 2010. This law prohibits smoking in public buildings such as schools, daycares, restaurants, taverns, lodging establishments, sports arenas, government buildings, and correctional facilities. The positive health impact of this legislation will be significant.

## KEY FINDINGS

- The smoking rate for adults in Door County is less than state and national levels.
- Tobacco use has a significant economic impact in Door County.
- An estimated 42 deaths annually, which is 14% of all deaths in Door County, are directly related to smoking each year.
- Data from 2008 shows an estimated 12.3% of pregnant women in Door County smoke.
- The percentage of high school students in Door County that smoke cigarettes (2010 data) is less than Wisconsin or the nation (2009 data).
- 2011 Wisconsin Wins compliance checks were completed in Door County with 100% compliance.
- In 2009, 25.6% of women enrolled in the First Breath program at Door County Public Health quit smoking during pregnancy.
- A Smoke-Free Air law went into effect in the State of Wisconsin on July 5, 2010.

## SECTION 11: ALCOHOL AND OTHER DRUG USE

### Focus Area Definition

***Alcohol and other drug use means any use of a substance or substances, that results in negative consequences. This includes a broad array of mood-altering substances that include, but are not limited to: alcohol, prescription substances, and illegal mood-altering substances. Negative consequences or unhealthy uses include, but are not limited to: operating a motor vehicle while intoxicated, drinking while pregnant, alcohol dependence, fetal alcohol spectrum disorder, alcohol-related hospitalizations, heavy drinking, alcohol-related cirrhosis deaths, motor vehicle injury or death, liquor law violations, other alcohol attributable deaths, underage drinking, non-medical or illicit drug use, drug-related death, drug-related hospitalizations, arrests for drug law violations, and alcohol-or drug-related crimes (e.g. property crimes, violent crimes).***

(Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

Alcohol use is very common in our society. Excessive alcohol use, either in the form of *heavy drinking* (drinking more than two drinks per day on average for men or more than one drink per day for women) or *binge drinking* (drinking 5 or more drinks during a single occasion for men or 4 or more drinks during a single occasion for women), can lead to increased risk of health problems such as liver disease or unintentional injuries.

(Source: Centers for Disease Control and Prevention)

Wisconsin tops the nation in wasted lives, harm, and death associated with its drinking culture. Alcohol-related deaths are the fourth leading cause of death in Wisconsin behind heart disease, cancer, and stroke (Source: Healthiest Wisconsin 2020: Everyone Living Better Longer)

The use of drugs other than alcohol also remains a problem in Wisconsin. As a whole, consumption patterns of illicit drugs in Wisconsin mirror national trends with few exceptions. Both nationally and in Wisconsin, the misuse of prescription drugs for non-medical purposes has emerged as a problem, especially among young adults.

(Source: Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008)

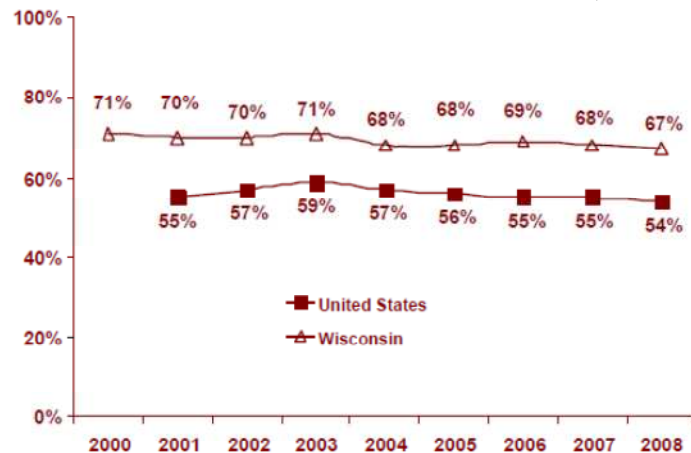
The following focus areas are examined in this section:

- ☐ Alcohol Consumption
- ☐ Operating While Intoxicated (OWI)
- ☐ Alcohol-Related Motor Vehicle Injuries and Fatalities
- ☐ Other Drug Consumption
- ☐ AODA Hospitalizations
- ☐ AODA as Underlying Cause of Death
- ☐ Drug Law Violations
- ☐ Community Group

## Alcohol Consumption

As shown in the graph below, alcohol use is more prevalent in Wisconsin than the nation as a whole.

**Current Alcohol Use Among Adults (age 18+)  
Wisconsin and the United States, 2000-2008**



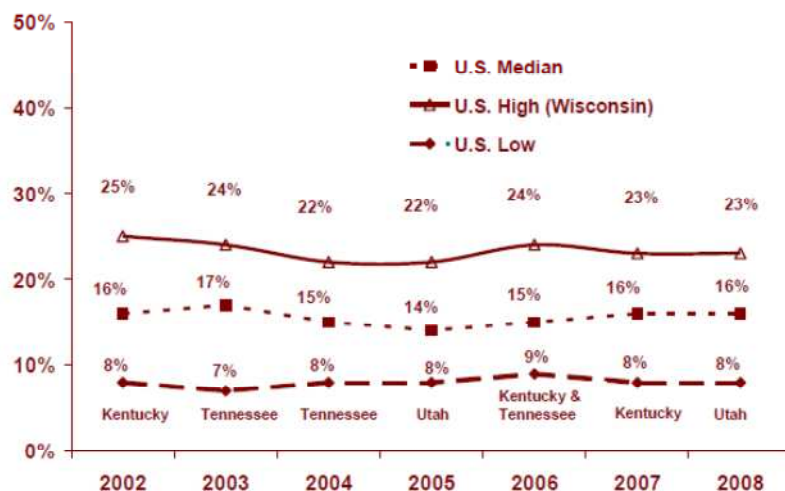
Source: Behavioral Risk Factor Survey, Division of Public Health, Wisconsin Department of Health Services.

Note: Current alcohol use is defined as at least one drink of alcohol in the past 30 days.

Wisconsin tops the nation in adult binge drinking. For 2002-2007, Door County's prevalence of adult binge drinking ranged from 20-22%, just slightly lower than the Wisconsin rate.

(Source: Behavioral Risk Factor Survey, Division of Public Health, Wisconsin Department of Health Services)

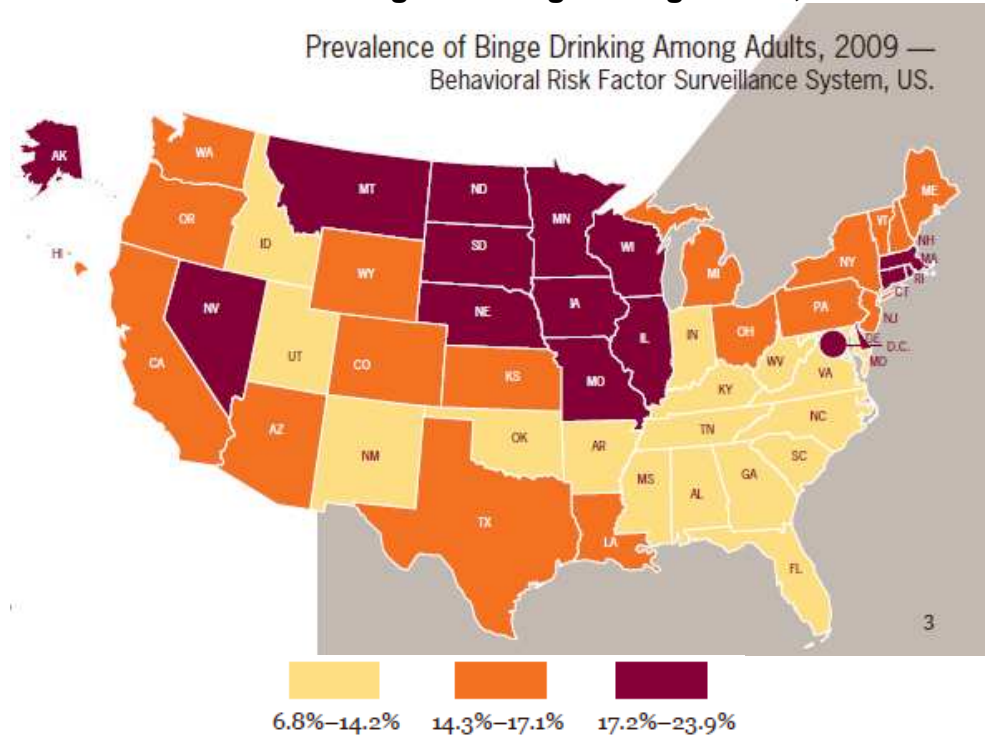
**Adult Binge Drinking Prevalence:  
Range of State Estimates: Low, High and US Median, 2002-2008**



Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Tennessee to 23.9% in Wisconsin. (Source: Centers for Disease Control)

### Prevalence of Binge Drinking Among Adults, 2009



(Source: *Behavioral Risk Factor Surveillance System*)

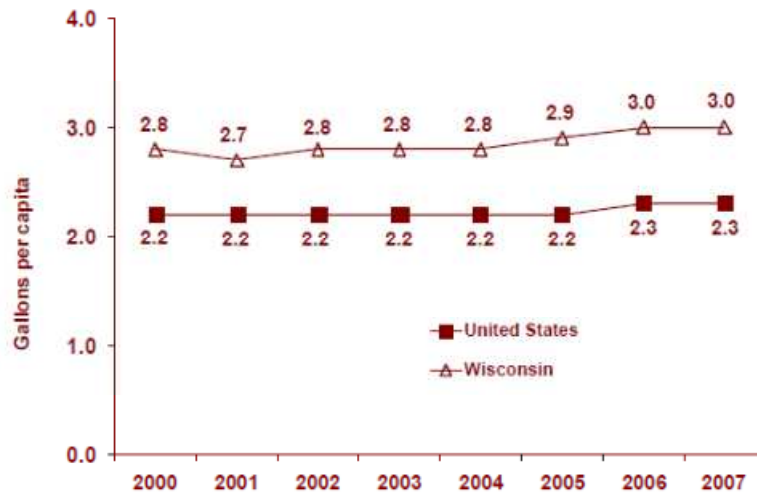
Data for heavy drinking shows a similar trend. Prevalence of heavy alcohol use among Wisconsin adults has remained at or near 8% since 2001. This was consistently higher than the national average (5% in 2008). Heavy use of alcohol is highest among the youngest adults, ages 18-24. In 2008, 14% of individuals in this age group in Wisconsin reported heavy drinking.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use*, 2010)

Between 2000 and 2007 per capita consumption of alcohol in Wisconsin rose from 2.8 to 3.0 gallons per person. Per capita consumption is gallons of ethanol consumed per person based on the population age 14 and older. Wisconsin's per capita consumption was notably higher than the national average every year. Wisconsin's per capita consumption, 3.0 gallons, is equal to 384 fluid ounces or 768 drinks (each alcoholic drink equals 0.5 ounces of ethanol).

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use*, 2008)

### Per Capita Alcohol Consumption (in gallons) Wisconsin and the United States, 2000-2007

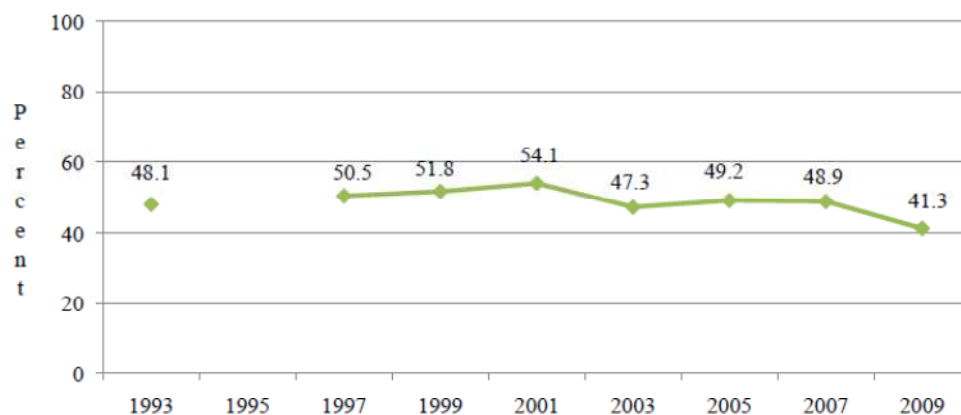


Source: *Per capita ethanol consumption for states, Census regions, and the United States, 1970-2007.* National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, U.S. Department of Health and Human Services.

The United States *Youth Risk Behavior Survey 2009* showed that the percentage of high school students who had *at least* one drink of alcohol within the past 30 days ranges by state from 18.2% in Utah to 44.8% in Texas. The United States average was 41.8% compared to Wisconsin's 41.3%.

The following chart shows the rate of high school students in Wisconsin from 1993 through 2009 that had at least one drink in the past 30 days.

Percentage of students who had at least one drink of alcohol on one or more of the past 30 days.  
(1993 - 2009)



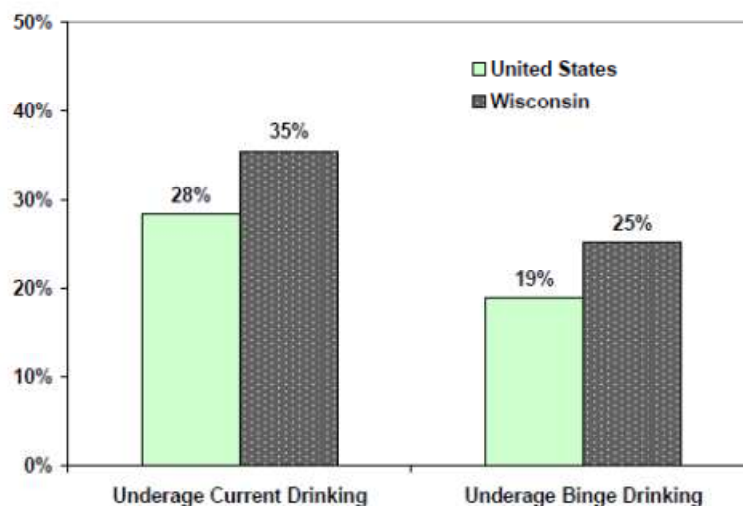
Data from 1995 unavailable  
2009 Wisconsin Youth Risk Behavior Survey

Wisconsin Department of Public Instruction

The *Wisconsin Youth Risk Behavior Survey* (WYRBS) was administered to students in Door County in the fall of 2010. For Door County students in high school, 44.7% indicated that they had consumed *at least* one drink of alcohol within the past 30 days.

Compared to the United States as a whole, Wisconsin has higher rates of “underage” drinking, defined by the *National Survey on Drug Use and Health* as drinking by youth ages 12 to 20. Wisconsin youth are more likely to report both *current drinking* (at least one drink in the past month) and binge drinking.

**Prevalence of underage drinking, Wisconsin and the United States, 2005-2006**

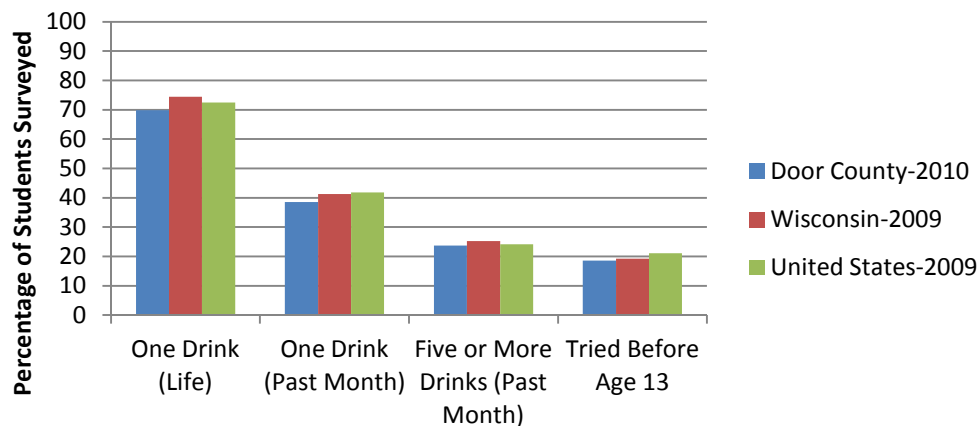


(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use*, 2008)

The chart below compares the *Youth Risk Behavior Survey* results from Door County, Wisconsin, and the United States. Data from the survey includes the percentage of high school students reporting they had:

- At least one drink in their lifetime
- At least one drink in the past month
- Five or more drinks in the past month
- Tried alcohol before age 13

## Youth Risk Behavior Survey: Alcohol Use by High School Students



(Source: Youth Risk Behavior Surveys-Door County 2010, Wisconsin 2009, United States 2009)

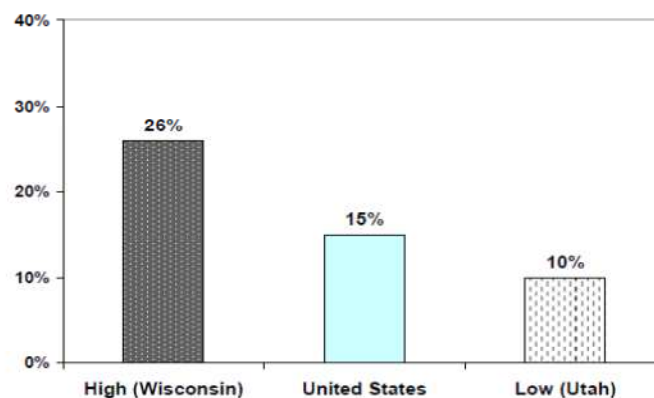
### Operating While Intoxicated (OWI)

In 2006, Door County had a rate of 1,230 arrests per 100,000 population for operating a vehicle while intoxicated. This rate is higher than Wisconsin's rate which was 775 arrests per 100,000 population in 2006.

Wisconsin has the highest prevalence of self-reported drinking and driving of any state in the nation. Based on combined data for the years 2004-2006 an estimated 26% of current drivers age 18 and older in Wisconsin drove under the influence of alcohol in the past 12 months.

(Source: Wisconsin Department of Health Services, Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008)

### Driving Under the Influence of Alcohol in the Past Year, States with the Highest and Lowest Prevalence and the US, 2004-2006 (combined)

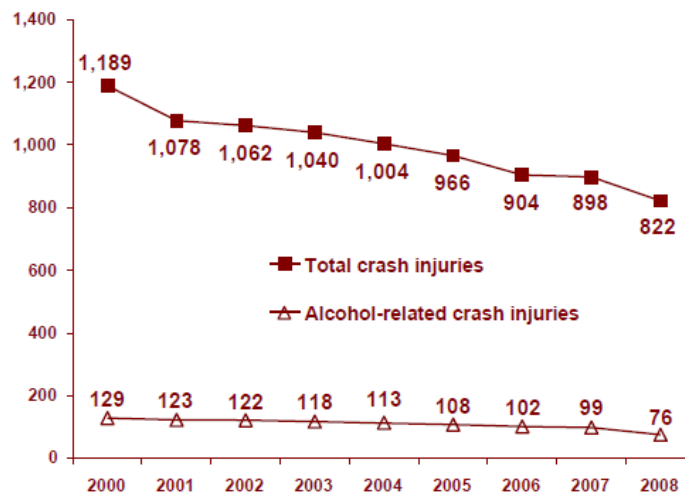


Source: National Survey of Drug Use and Health, Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services.



## Alcohol –Related Motor Vehicle Injuries and Fatalities

### **Alcohol-Related Motor Vehicle Crash Injuries (per 100,000 population) Wisconsin, 2000-2008**



Source: Numbers of injuries were drawn from final year crash statistics, Wisconsin Department of Transportation. (See <http://www.dot.wisconsin.gov/drivers/drivers/traffic/crash/final.htm>.) Rates were calculated as the number of nonfatal alcohol-related motor vehicle crash injuries divided by the total population X 100,000.

In 2007, the rate of Door County alcohol-related motor vehicle crash injuries per 100,000 population was 99 (same as the state rate), and for 2008 it was 94 (higher than the state rate).

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2010*)

In 2008, the Wisconsin Department of Transportation states that out of 781 motor vehicle crashes, 53 were alcohol related in Door County. From the 53 alcohol-related crashes in the county, there were 26 injuries and 3 deaths.

(Source: Wisconsin Department of Transportation, Bureau of Transportation Safety)

Many recreational vehicle fatalities are a direct consequence of alcohol use and abuse. Recreational vehicles include boats, snowmobiles, and all-terrain vehicles (ATVs). In 2008, 43% of these deaths were alcohol-related (down from 60% in 2006 and similar to the proportions in 2004, 2005, and 2007). In 2008, 23 of the 53 recreational vehicle deaths in Wisconsin were alcohol-related.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2010*)

The Wisconsin Department of Natural Resources offers data specific to Door County regarding recreational vehicle fatalities attributed to alcohol. From 2006 to 2010, there were no ATV fatalities in the county. From 2008 to 2010, there were 3 boating fatalities with 1 fatality involving alcohol. Since 2002, there have been 3 snowmobile fatalities in Door County, all involving alcohol.

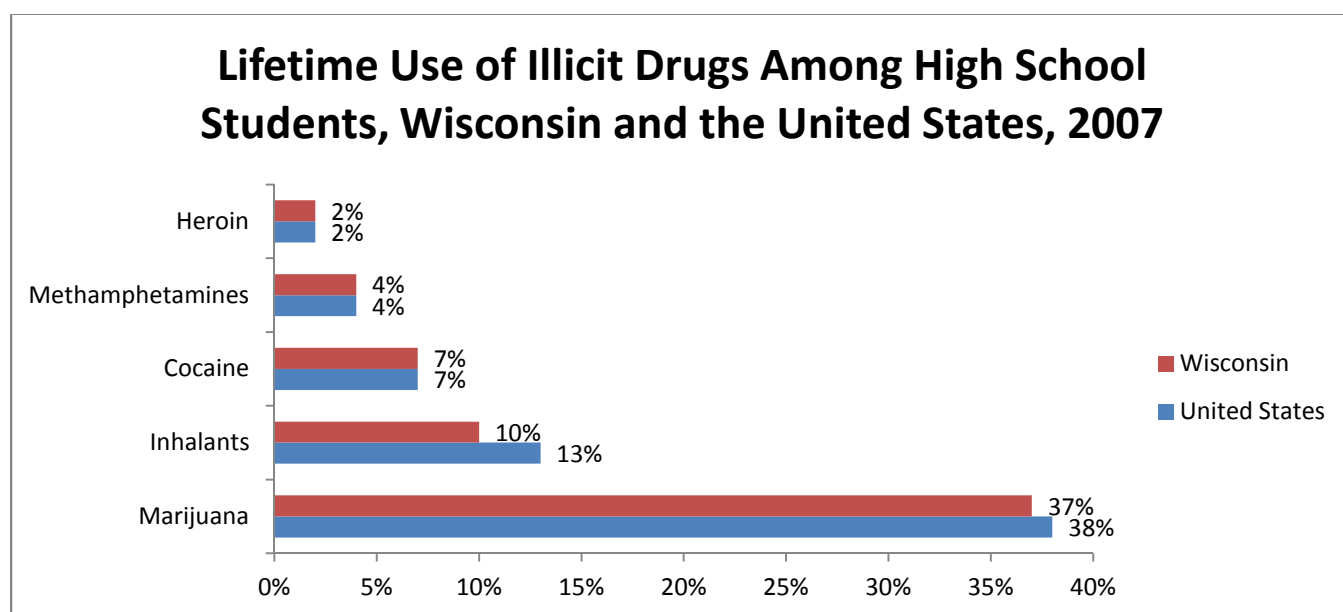
## **Other Drug Consumption**

The use of illicit drugs other than alcohol remains a problem in Wisconsin. As a whole, consumption patterns of illicit drugs in Wisconsin mirror national trends.

Wisconsin high school students and their national counterparts show similar patterns of experimentation with illicit drugs, with rates slightly lower in Wisconsin than for the nation as a whole. Rates of illicit drug use and non-medical use of prescription pain relievers are highest among young adults ages 18-25.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2010*)

As shown in the graph below, marijuana is the most common form of illegal drug use among high school students in the United States and Wisconsin.

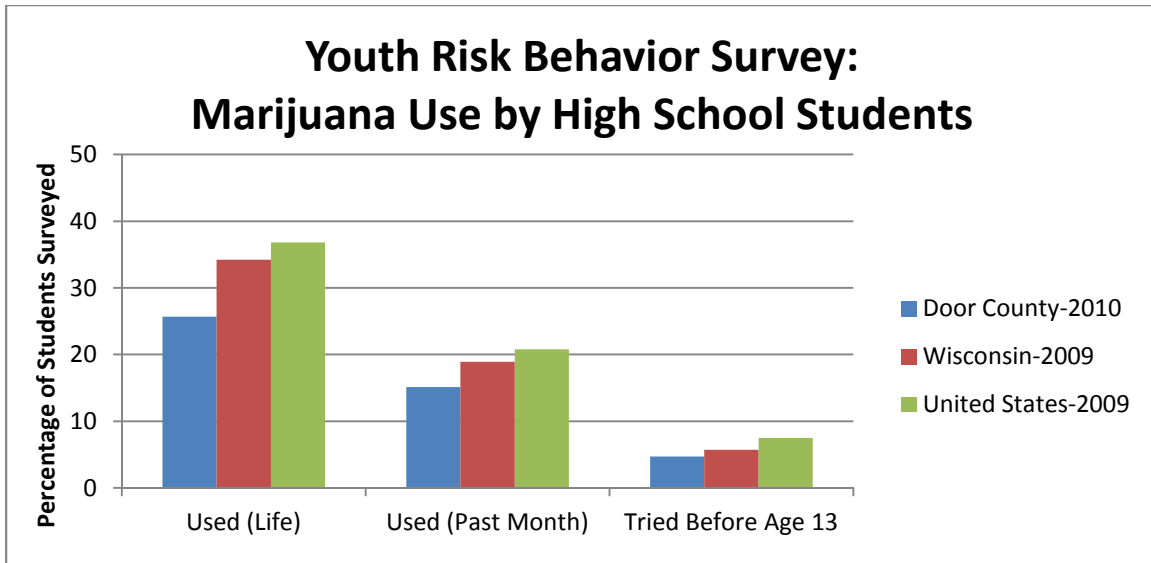


(Source: *Youth Risk Behavior Survey*, Wisconsin Department of Public Instruction, U.S. Centers for Disease Control and Prevention)

The next graph shows marijuana use by high school students in the US, Wisconsin, and Door County. Categories in the survey were percentage of students who:

- Used marijuana one or more times during their lifetime
- Used marijuana one or more times during the 30 days before the survey
- Tried marijuana for the first time before age 13 years

Data compares the United States and Wisconsin in 2009 to Door County in 2010. Door County ranks lower than the state and the nation in these categories.



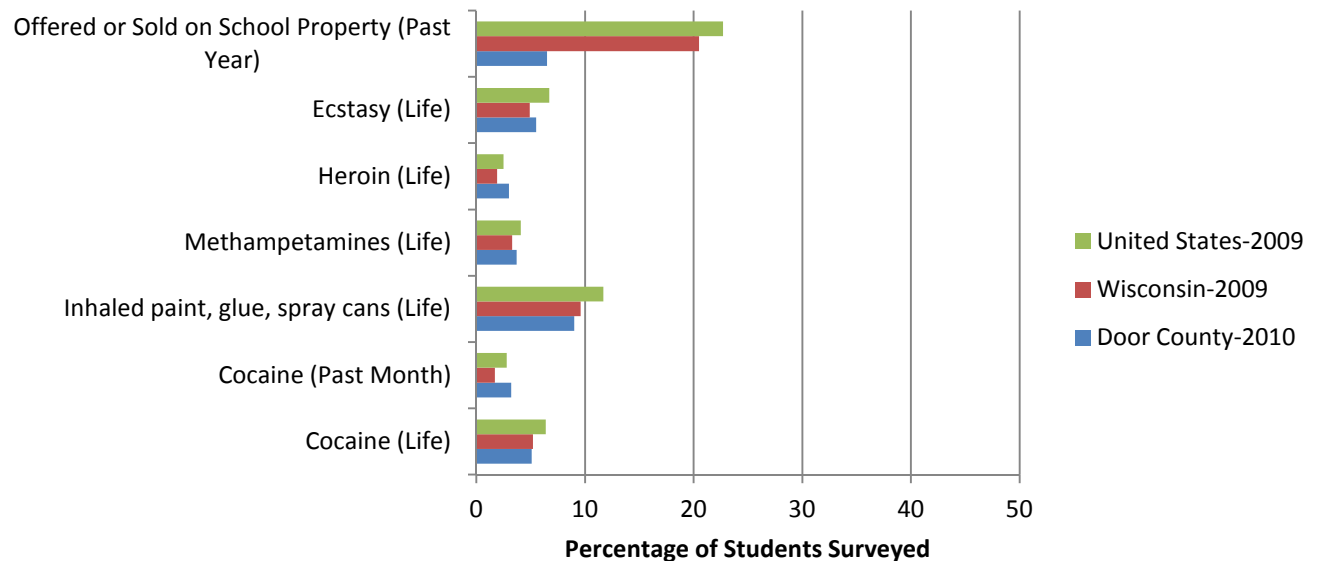
(Source: Youth Risk Behavior Surveys-Door County 2010, Wisconsin 2009, United States 2009)

The *Youth Risk Behavior Survey* results below show the percentage of high school students that:

- Were offered, sold, or given an illegal drug by someone on school property during the 12 months before the survey
- Used ecstasy one or more times during their lifetime
- Used heroin one or more times during their lifetime
- Used methamphetamines one or more times during their life
- Sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life
- Used any form of cocaine during the 30 days prior to the survey
- Used any form of cocaine one or more times during their life

Survey results from the nation and the state for 2009 are compared to Door County results from 2010.

## Youth Risk Behavior Survey: Other Drug Use by High School Students



(Source: Youth Risk Behavior Surveys-Door County 2010, Wisconsin 2009, United States 2009)

### **AODA (Alcohol and Other Drug Abuse) Hospitalizations**

The number of alcohol-related hospitalizations in Wisconsin increased by 8% from 2002 to 2006. Door County has also seen an increase in alcohol-related hospitalizations. In 2004, Door County residents had 217 alcohol-related hospitalizations. In 2006, the number rose to 231. The Door County rate was 824 per 100,000 population in 2005-2006, with the Wisconsin rate being 861 per 100,000 population for the same time period.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008*)

The number of drug-related hospitalizations in Wisconsin increased 26% from 2002 to 2006. Drug-related hospitalizations include diagnoses such as: drug psychoses, drug dependence, drug-related polyneuropathy, as well as accidental and purposeful poisonings. Door County residents had 36 drug-related hospitalizations in 2004, increasing to 46 hospitalizations in 2006. The Door County rate of drug-related hospitalizations per 100,000 population was 166 for the 2005-2006 time period. The Wisconsin rate of drug-related hospitalizations per 100,000 population for the same time period was 249.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008*)

## **AODA as the Underlying Cause of Death**

From 1999-2006 in Door County, the annual average number of deaths from alcohol, other than from liver cirrhosis or motor vehicle accidents was 6. This was a rate of 21.5 per 100,000 population. In Wisconsin, the annual average number of deaths from alcohol was 976 with a rate of 17.9 per 100,000.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008*)

There was an annual average of one alcohol-related liver cirrhosis death in Door County between 1999-2006. This was a rate of 4.4 per 100,000 population. The State of Wisconsin had an annual average of 219 deaths due to alcohol-related liver cirrhosis, which was a rate of 4.0 per 100,000 population.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008*)

Deaths due to drug use are a direct consequence of illicit drug use. In 2008, 482 Wisconsin residents died as a direct consequence of illicit drug use. This number represented a decline from the previous two years; however, it remains much higher than in the first half of the decade. The age-adjusted mortality rate of drug-related deaths has increased in Wisconsin, from 4.0 deaths per 100,000 population in 2000 to 8.5 deaths per 100,000 in 2008.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2010*)

## **Drug Law Violations**

Illicit drug use directly affects the number of arrests for drug law violations. Door County has ranked lower than the Wisconsin average for drug law violations per 100,000 people. Data from 2006 shows 26,193 Wisconsin residents were arrested for drug law violations. This number correlates to a rate of 465 per 100,000 population. Door County's rate in 2006 was significantly lower than Wisconsin's at 309 per 100,000 population.

(Source: Wisconsin Department of Health Services, *Wisconsin Epidemiological Profile on Alcohol and Other Drug Use, 2008*)

## **Community Group**

In 2007, a small group of concerned professionals and community members first met and formed the Door County Alcohol and Other Drug Coalition (DCAODC). Their mission is to prevent and reduce substance abuse and related problems by providing leadership, education, and support to communities and institutions throughout Door County. The DCAODC has been involved with youth education and culture change, promotion of alcohol free youth activities, parent education and networks, involvement of businesses in the solution, town hall meetings, and creating change in culture surrounding AODA issues. The Coalition meets monthly, and current co-chairpersons are Sue Today and Tina Baeten.

## **Community AODA Services**

The main provider of Alcohol, and Other Drug Abuse (AODA) services in our county is the Door County Department of Community Programs (DCDCP).

**“In general, about 10% of any population suffers from AODA issues. Current issues specific to Door County include the appearance of new synthetic ‘designer’ drugs, referred to as ‘K2’ or ‘bath salts’, among other names. Although DCDCP has seen only a few clients using these designer drugs, the effects observed have been drastic. A concern affecting a larger amount of people is the limited number of providers in our community certified for AODA services.”**

**—Joe Krebsbach, Director of Door County Department of Community Programs**

Door County Counseling Services has one professional who provides AODA services, and is the only other agency in the county with state certification to provide AODA services. In recent years, there has been a six month waiting list at DCDCP for AODA services.

DCDCP has criteria that can place someone at the top of the list for services for issues such as crisis calls, pregnancy, IV drugs users, or testing positive for HIV. More resources are needed for AODA services in the county. Private agencies providing AODA services however, require payment from insurance resources or private pay. DCDCP is able to provide services to those without insurance on a sliding-fee scale.

DCDCP also offers individualized treatment programs for those seeking help for AODA. Their Intensive Outpatient Program (IOP) meets three days a week (8.5 hours/week total). In some cases, clients who might otherwise need inpatient treatment are able to use IOP services and reside at the Kimberly House, a local transitional living facility for those recovering from alcohol or drug abuse. Residing at the Kimberly House and participating in the IOP for 90 days has a cost of approximately \$1200-\$2000. The cost for inpatient treatment for 30 days starts at over \$4,400 per month.

## KEY FINDINGS

- Wisconsin leads the nation in binge drinking and per capita alcohol consumption among adults.
- Door County's rate of adult binge drinking is slightly lower than the Wisconsin rate.
- The number of Door County high school students using alcohol is similar to that of the State of Wisconsin.
- Wisconsin youth are more likely to report current drinking and binge drinking compared to United States youth as a whole.
- Door County's rate of arrests for Operating While Intoxicated is higher than the state rate.
- Wisconsin has the highest self-reported drinking and driving rate in the nation.
- Door County's marijuana use reported by high school students is lower than in Wisconsin or the United States.
- Alcohol and drug related hospitalizations of Door County residents have been on the rise.
- The Door County annual average rate of deaths related to alcohol (other than liver cirrhosis or motor vehicle accidents) was higher than Wisconsin's rates from 1999 to 2006.
- The number of deaths from illicit drug use has been increasing in Wisconsin.
- The rate of drug law violations is lower in Door County than in the State of Wisconsin.
- The Door County Alcohol and Other Drug Coalition was formed by community members to reduce and prevent substance abuse and related problems in the county.
- Door County Department of Community Programs, the main provider of AODA services in our community, has had a six month waiting list in recent years.
- DCDCP's Intensive Outpatient Program combined with residence at the Kimberly House (local transitional living facility for those recovering from alcohol or drug abuse) can be an alternative to more costly inpatient treatment.

## SECTION 12: INJURY AND VIOLENCE

### Focus Area Definition

**Violence and injury prevention encompasses a broad array of topics.** Unintentional injuries ***are often referred to as accidents despite being highly preventable.*** ***Examples include: falls, drowning, motor vehicle crashes, suffocation and poisoning.*** Intentional injuries ***include those that were purposely inflicted with the intent to injure or kill someone (including self).*** ***Intentional injuries often involve a violent act. Examples include: homicide, child maltreatment, sexual assault, bullying, and suicide. While not all violence results in physical injury, the use or threat of use, of force or power may result in injury, death, psychological harm, maldevelopment, or deprivation. This erodes communities by reducing productivity, decreasing property values, and disrupting social services, to name a few.***

(Source: *Healthiest Wisconsin 2020: Everyone Living Better Longer*)

Injuries are the leading cause of death among Wisconsin residents age 1-44 years. Injuries are also a significant cause of morbidity and mortality at all ages. Though many of these deaths are unintentional, the majority are also *preventable*.

(Source: *Healthiest Wisconsin 2020: Everyone Living Better Longer*)

When a public health approach is applied to the problems of injury and violence, in most cases, these events can be prevented. Strategies for injury and violence prevention focus primarily on environmental and product design, human behavior, education, and legislative and regulatory requirements that support environmental and behavioral change. (Source: *Healthiest Wisconsin 2020: Everyone Living Better Longer*)

The following focus areas are examined in this section:

- ☐ Violent Crime
- ☐ Homicide
- ☐ Domestic Abuse
- ☐ Child Abuse and Neglect
- ☐ Elder Abuse
- ☐ Safety Belt Use
- ☐ Child Passenger Safety
- ☐ Emergency Room Visits, Hospitalizations, and Deaths

### **Violent Crime**

In the Federal Bureau of Investigation's (FBI) crime reporting program, *violent crime* is defined as offenses which involve force or threat of force, and is composed of four



offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.

The following violent crimes were reported in 2008 for Door County and other geographically comparable Wisconsin counties.

#### **Violent Crimes Reported to Law Enforcement, 2008**

<b>2008 County Data</b>	<b>Murder</b>	<b>Forcible rape</b>	<b>Robbery</b>	<b>Aggravated Assault</b>
Door	0	1	2	9
Kewaunee	0	0	0	3
Bayfield	0	0	0	21
Shawano	0	1	1	1

(Source: FBI, 2008 Crime in the United States)

Door County ranked 4th out of 72 counties related to violent crime rate. Door County had an average rate of 38 violent crimes per 100,000 population from 2003 through 2006. The overall rate of violent crime in the State of Wisconsin for the same time period was 240 violent crimes per 100,000 population.

(Source: 2008 Wisconsin Health Rankings -Full Report)

**“We are fortunate to not have gangs and inner city problems in Door County. Is it safe enough to leave your doors unlocked? Probably, but not recommended. Get to know your neighbors and be aware of your surroundings. Know who should be there and who may not belong there”.**

**--Jeff Farley, Lieutenant, Door County Sheriff's Department**

Lt. Jeff Farley of the Door County Sheriff's Department attributes the low rate of violent crime in Door County to living in a smaller community. Because we live in a small community, we tend to know each other and provide as much help as possible when it is needed. Community organizations are also able to provide assistance to those who may need it. Together, this can help prevent desperate individuals from committing violent crimes.

However, with the current state of the economy and the proposed decrease in funding for many community-based programs that help families, Lt. Farley believes there is the possibility that we might see an increase in violent crimes, such as armed robbery, in the future.

One upcoming concern that Lt. Farley sees for the future is the new concealed carry law. The bill was signed into law on July 8<sup>th</sup>, 2011 and will allow Wisconsin residents to carry concealed weapons by November 1<sup>st</sup>, 2011.

## **Homicide**

In 2009, there were a total of 163 homicides in the State of Wisconsin. None of these were in Door County. For the years 1998 through 2008, the Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy had no trend data on the number of homicide deaths per year in Door County. During these years, there were less than 5 deaths by homicide in the county.

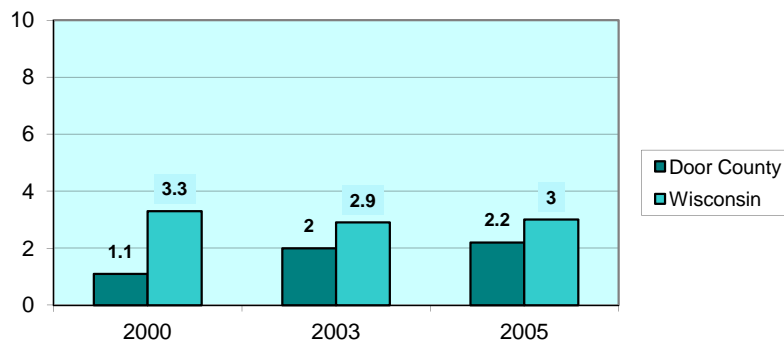
(Source: Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy)

## **Domestic Abuse**

The national 2010 goal for domestic abuse was to reduce physical assaults by current or former intimate partners to 3.6 per 1,000 persons age 12 years and older.

The graph below looks at domestic violence arrests for Door County in comparison to Wisconsin. For 2005, Door County had 2.2 arrests per 1,000 adults compared to the Wisconsin rate of 3 arrests per 1,000.

### **Door County Domestic Violence Total Arrests (per 1,000 adults), 2000-2005**



(Source: Wisconsin Council on Children and Families, WisKids Count 2005, [www.wccf.org](http://www.wccf.org))

The following is taken from the *Wisconsin Department of Justice Domestic Abuse Incident Report* data. Door County's number of incidents has remained between 65-70 annually for the years shown. Door County's arrest rate has remained above the state rate. The following tables portray the number of incidents and arrest rates for Wisconsin, Door County, and several other Wisconsin counties for comparison from 2006 through 2008.

### Domestic Abuse Incident Report Data, 2006

	Population	Number of Incidents	Arrest Rate
<b>State of Wisconsin</b>	5,557,000	25,531	68%
<b>Brown County</b>	240,213	1393	72.6%
<b>Sheboygan County</b>	114,756	1393	72.6%
<b>Marinette County</b>	43,208	576	76.3%
<b>Oconto County</b>	37,958	132	82.5%
<b>Lincoln County</b>	30,151	101	Not reported
<b>Door County</b>	28,200	86	98.8%
<b>Kewaunee County</b>	20,832	70	90.0%

### Domestic Abuse Incident Report Data, 2007

	Number of Incidents	Arrest Rate
<b>State of Wisconsin</b>	29,667	72%
<b>Brown County</b>	1202	75.7%
<b>Sheboygan County</b>	538	78.4%
<b>Marinette County</b>	141	69.5%
<b>Oconto County</b>	141	5.6%
<b>Lincoln County</b>	82	97.5%
<b>Door County</b>	65	86.1%
<b>Kewaunee County</b>	66	Not available

### Domestic Abuse Incident Report Data, 2008

	Number of Incidents	Arrest Rate
<b>State of Wisconsin</b>	29,769	77%
<b>Brown County</b>	1230	75.5%
<b>Sheboygan County</b>	496	84.8%
<b>Marinette County</b>	157	74.5%
<b>Oconto County</b>	110	36.3%
<b>Lincoln County</b>	82	98.7%
<b>Door County</b>	68	91.1%
<b>Kewaunee County</b>	54	Not available

(Source: Wisconsin Department of Justice, *Domestic Abuse Incident Reports*)

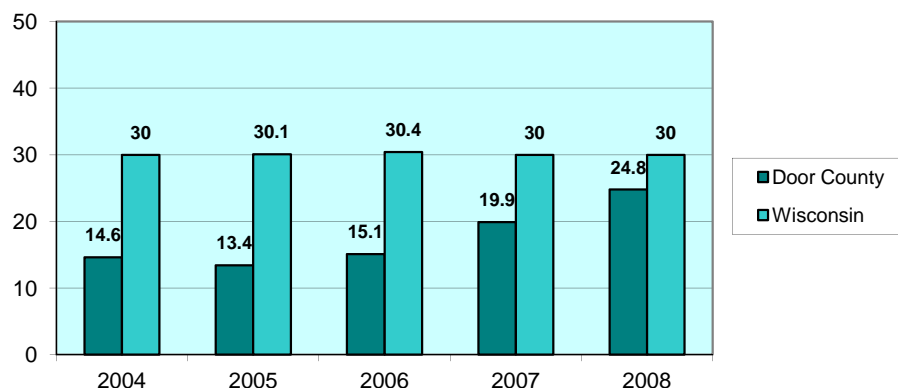
## Child Abuse

Alleged child maltreatment is reported to all county social or human services departments in the state.

The chart below looks at total maltreatment reports for 2004-2008 and compares Wisconsin to Door County. The term “report” refers to a count of children suspected of being maltreated. From 2005 to 2008, the rate of report in Door County has been

steadily increasing. However, the rate of reports remains lower than the state rates for all years.

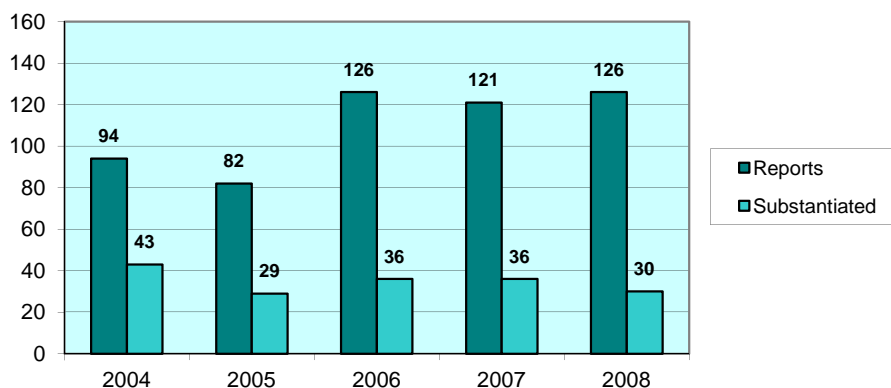
### Door County Maltreatment Reports (per 1000 child population), 2004-2008



(Source: Bureau of Programs and Policies, *Annual Report to the Governor and Legislature on Wisconsin Child Abuse and Neglect*)

All alleged reports of child abuse are investigated by Door County Department of Social Services. The next graph looks at the actual number of alleged or suspected reports received by year for Door County, and the number of reports that were substantiated after investigation.

### Door County Child Maltreatment Total Number Reported in Comparison to Substantiated, 2004-2008



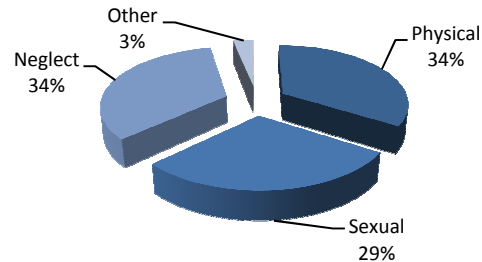
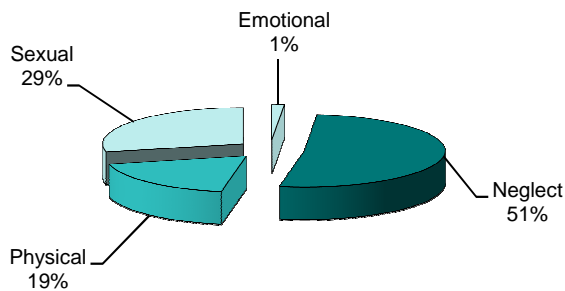
(Source: Bureau of Programs and Policies, *Annual Report to the Governor and Legislature on Wisconsin Child Abuse and Neglect*)

Child maltreatment is divided into four basic types: physical neglect, physical abuse, sexual abuse, and emotional abuse.

The pie chart below provides a snapshot of the types of child abuse and neglect reports received in Door County in 2008. Out of the 140 reports received, 51% (72) were neglect, 19% (26) were physical abuse, 29% (40) were sexual abuse, and 1% (2) were emotional/verbal abuse.

orted,

Reported,



(Source: Bureau of Programs and Policies, *Annual Report to the Governor and Legislature on Wisconsin Child Abuse and Neglect*)

In 2009, *Door County Department of Social Services Annual Reports* showed that 34% of child abuse reports were for physical abuse. That same year, neglect also made up 34% of reports. Sexual abuse was found in 29% of reports and other reports totaled 3%. (This information is provided in the pie chart above.)

Concerns about child maltreatment (under Chapter 48 Wis. Stats) and child welfare are referred to Social Services by both community professionals and private citizens. Reports of child welfare concerns may be about families experiencing parent-child conflicts, divorce or visitation related issues, financial crisis, or other miscellaneous issues. Child welfare concerns do not reach the threshold to be considered child maltreatment.

The following data is from *Door County Department of Social Services Annual Reports* from 2006-2009. The data includes the number of reports for child welfare and child protection.

#### Child Welfare Reports, 2006-2009

	2006	2007	2008	2009
Cases Accepted for Services	27	52	57	56
Cases <i>Not</i> Accepted for Services	13	16	25	27
<b>Total Reports Received</b>	<b>40</b>	<b>68</b>	<b>82</b>	<b>83</b>
Action Taken Cases (percent)	68%	76%	70%	67%

(Source: Door County Department of Social Services)

#### Child Protection Reports, 2006-2009

	2006	2007	2008	2009
Investigations of Children in Need of Protection or Services (CHIPS)	107	89	90	100
Screened Out Referrals	80	33	42	55
<b>Total Reports Received</b>	<b>187</b>	<b>122</b>	<b>132</b>	<b>155</b>
Action Taken Cases (percent)	57%	73%	68%	65%

(Source: Door County Department of Social Services)

## **Elder Abuse**

No one knows precisely how many older Americans are being abused, neglected, or exploited. While evidence accumulated to date suggests that many thousands have been harmed, there are no official national statistics.

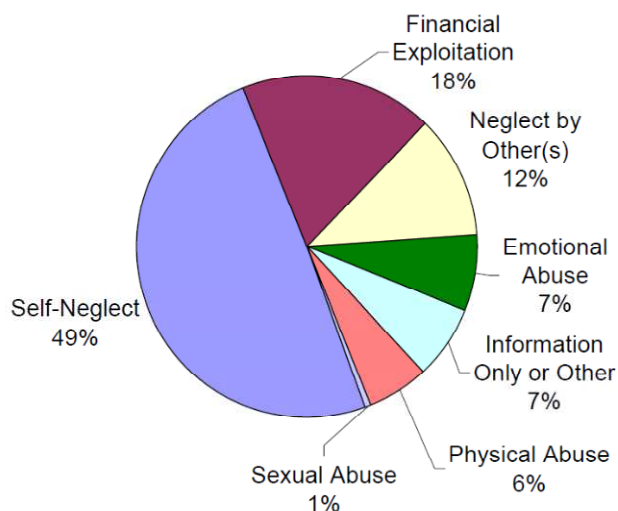
There are several reasons:

- Definitions of elder abuse vary. It is difficult to pinpoint exactly what actions or inactions constitute abuse, and the problem remains greatly hidden.
- State statistics vary widely, as there is no uniform reporting system.
- Comprehensive national data are not collected.

(Source: National Center on Elder Abuse, Washington, DC)

As indicated by the pie chart below, in 2009, the most common primary issue of older adult abuse in the State of Wisconsin was self-neglect. Self-neglect was followed in frequency by financial exploitation and then neglect by others.

***State of Wisconsin Annual Elder Abuse and Neglect Report 2009***  
**Summary of Reports from Wisconsin Counties**  
**Primary Issue Identified**



(Source: Wisconsin Department of Health Services)

The Door County Department of Social Services (DCDSS) is the lead agency in Door County responsible for receiving and investigating reports of physical abuse, financial exploitation, neglect, and self-neglect to older adults aged 60 and over, as well as reports of elders “at-risk”.

According to data from the DCDSS, primary issues of elder abuse identified in Door County follow the same trends as that of the state. In Door County, the most common primary report of elder abuse from 2004 through 2010 was self-neglect. The next most frequent primary issue was financial exploitation. Following this, the most common reports in order of frequency were from caregiver neglect, emotional abuse, physical abuse, and other undefined reasons.

(Source: Door County Department of Social Services Annual Reports, 2004-2010)

In the State of Wisconsin, in 2009, 5,316 cases of suspected abuse, neglect, or financial exploitation involving older adults were reported. This was an increase of 8.5% over 2008. Tragically, 28 incidents were related to a death, and a total of 371 incidents were considered life-threatening. About one in 14 incidents involved a life-threatening or fatal situation.

*(Source: Wisconsin's Annual Elder Abuse and Neglect Report, 2009)*

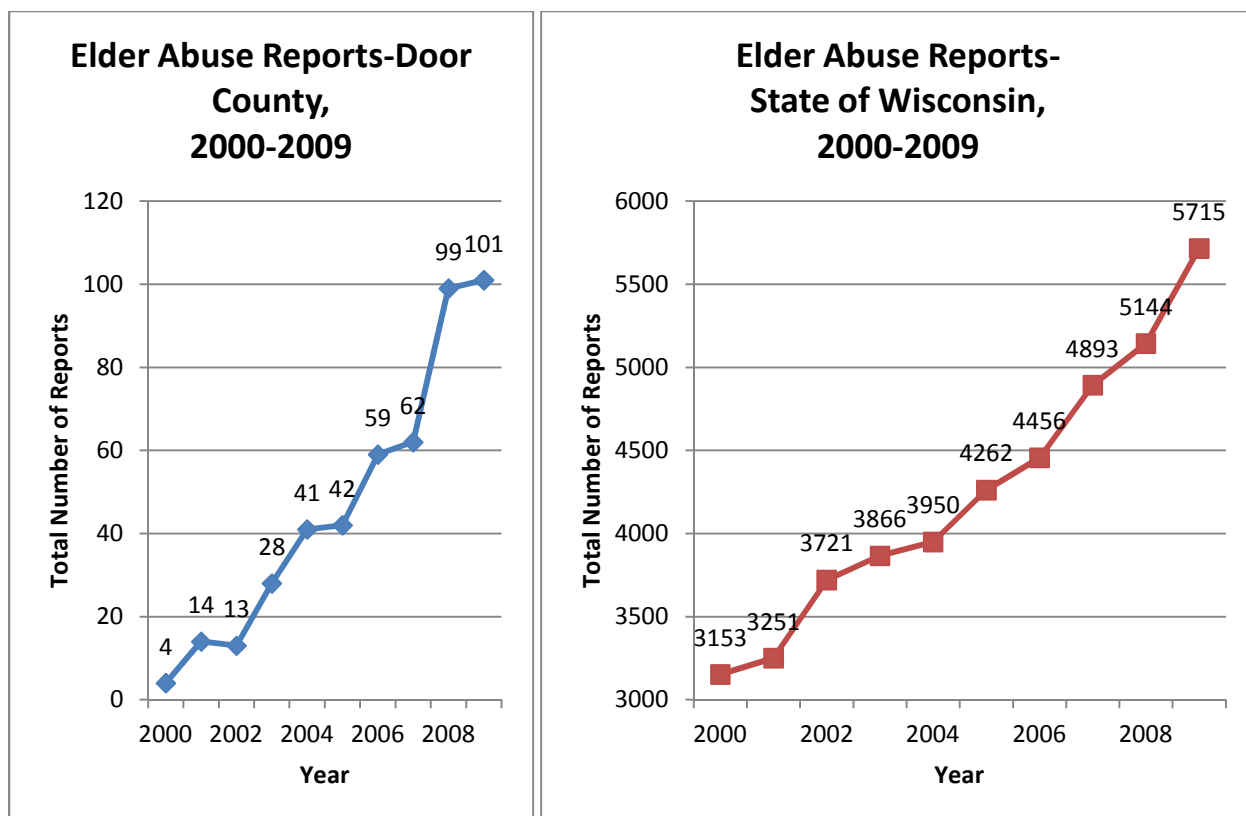
**“During the year 2010, 105 reports of Elder Abuse were received by Door County Adult Protective Service Workers and most perpetrators were family members. People with money and status are as vulnerable as anyone else. In addition to collaborating to meet the needs of vulnerable adults, the Door County Interdisciplinary Team for Elders and Adults at Risk strives to educate citizens and professionals about the prevention of abuse through written materials and presentations on scams, domestic violence, careful preparation of advanced planning documents, identity theft, hiring in-home helpers, and personal safety. If it sounds too good to be true, it probably is.”**

**--Bev Knutson, Adult Protective Services Supervisor**

The increased number of reports signals better communication between law enforcement, health care professionals, and social service agencies. This leads to more people recognizing signs of abuse and neglect and helping to ensure the safety of older residents.

*(Source: Wisconsin's Annual Elder Abuse and Neglect Report, 2009)*

The following charts contain data compiled by the Wisconsin Department of Health Services. The charts show the total number of elder abuse reports in Door County and in the State of Wisconsin from 2000 through 2009. Both trends in the state and the county have been increasing since the year 2000.



(Source: Wisconsin Department of Health Services, Bureau of Aging and Disability Resources)

## **Safety Belt Use**

Safety belt use in Wisconsin has reached an all-time high in 2010 with 79% of drivers and passengers buckling up. However, it still lags behind the 84% national average for safety belt use. Wisconsin is also behind neighboring states, including Michigan and Illinois, which have safety belt use rates of more than 90%.

(Source: Wisconsin Department of Transportation, <http://www.dot.wisconsin.gov/safety/vehicle/seatbelt/>)

## **Child Passenger Safety**

According to the Wisconsin Child Passenger Safety Advocate:

- A total of 3,082 child restraint citations were posted to driving records in 2005.
- In the past five years, 53 children, ages 0-8, were killed in Wisconsin by motor vehicle crashes.
- Over the same time period, 8,207 children were injured.
- Of the children killed, 30% were unbelted and 59% were either unbelted or protected only by a seat belt.

(Source: Wisconsin Child Passenger Safety Advocate, <http://www.wcpsa.com>)



Child passenger safety data is difficult to attain. Belt use is highest among 0-4 year old children. This includes safety seat use also. In a 2007 observational study, about 98% of children aged 0-4 were restrained in child passenger seats. However, a 16 month nationwide study in 2002, by the National Safe Kids program, estimates 72.6% of children are improperly positioned in the safety seats, increasing the risk of injury if involved in a crash.

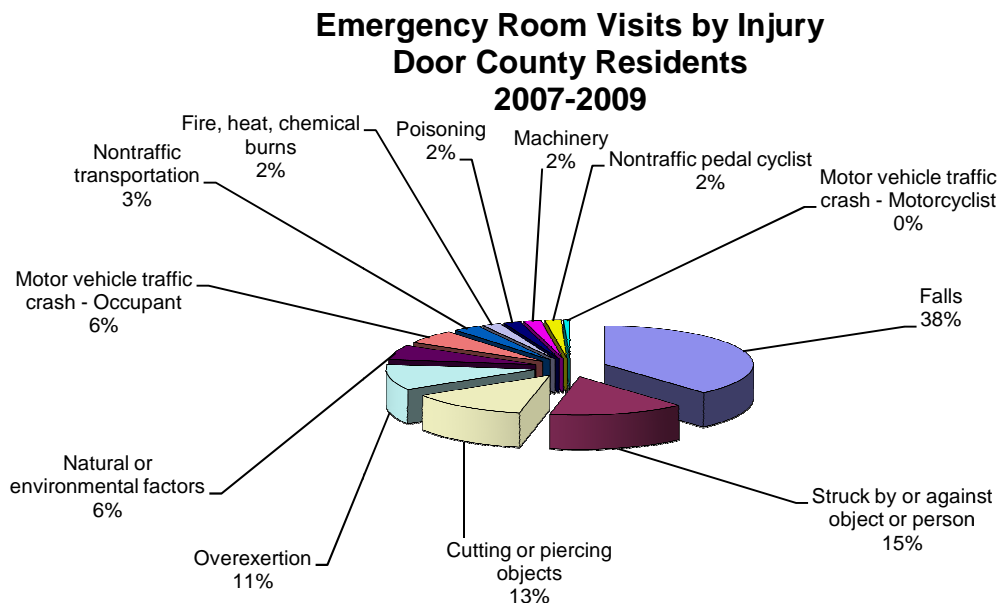
(Source: Wisconsin Department of Transportation, <http://www.dot.wisconsin.gov/safety/motorist/crashfacts/docs/seatbeltuse.pdf>)

In 2010, Door County Public Health was able to implement a program for car seat safety inspections through a maternal and child health grant. Door County Public Health was able to have one public health nurse certified in safety seat inspections. There are only two individuals in Door County with this certification. Car seat safety inspections are offered to the public, by appointment, free of charge through Door County Public Health. In 2010, there were 54 car seat inspections performed by the Door County Public Health Department. Of the inspections completed, over 90% of safety seats required adjustments.

### **Emergency Room Visits, Hospitalizations, and Deaths**

The pie chart below breaks down the reasons for emergency room visits by Door County residents by injury type from 2007-2009. In Door County, the most frequent injury leading to an emergency room visit was from falls. The next most frequent reason for emergency room visits were injuries from getting struck by or against an object or person, and injuries from cutting or piercing objects.

(Source: Wisconsin Interactive Statistics on Health, Wisconsin Department of Health Services, <http://dhs.wisconsin.gov/wish>)



(Source: Wisconsin Interactive Statistics on Health (WISH), Wisconsin Department of Health Services <http://dhs.wisconsin.gov/wish>)

Data was also collected for hospitalizations by cause of injury. Data taken from 2007-2009 was divided into age groups, and included the top three causes of injury for each age group. The most common cause of injury hospitalization for ages 0-4 and for those aged 45 and above was falls. The most common cause of injury hospitalization for ages 5-14 was motor vehicle crash occupant. For the ages of 15-44, causes of injury hospitalizations were split between motor vehicle crash occupants, poisoning, and falls.

(Source: Wisconsin Interactive Statistics on Health (WISH), Wisconsin Department of Health Services, <http://dhs.wisconsin.gov/wish>)

On August 9, 2010 the State of Wisconsin Department of Health Services issued a press release reporting that deaths from falls have surpassed both motor vehicle crashes and suicide as the most common cause of injury-related deaths in the state. According to the report, the *Burden of Falls in Wisconsin*, unintentional falls caused 918 deaths compared to 581 deaths caused by motor vehicle crashes. While a large majority of fall-related deaths (87%) and inpatient hospitalizations (70%) involved seniors, fall-related emergency department visit rates for young males age 14 and younger was nearly identical to that of males 65 and older. With Door County's large senior population, this report has special significance.

(Source: DHFS Press Release 08/09/2011 Report: *Falls Are Now the Most Common Cause of Injury-Related Deaths in Wisconsin*)

## KEY FINDINGS

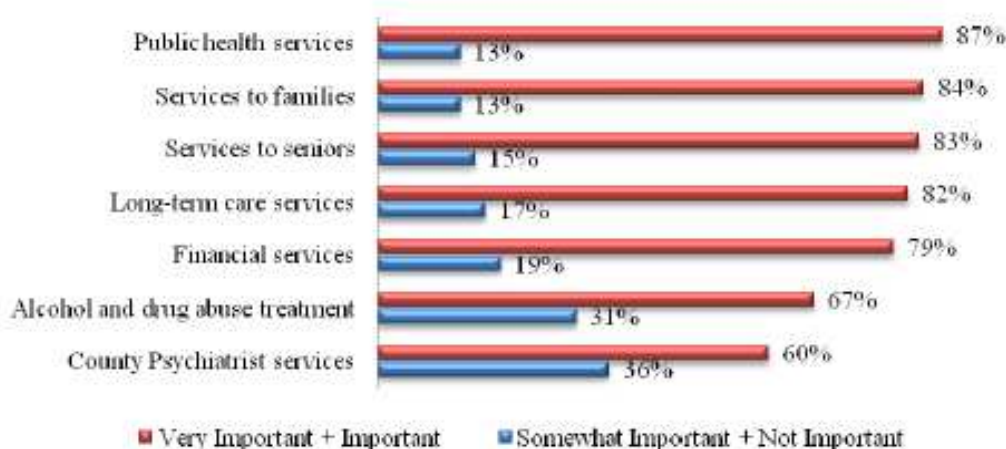
- Door County has a relatively low occurrence of violent crimes.
- The number of domestic violence reports in Door County has remained relatively stable between 65-70 annually and arrest rates remain higher than the state.
- Door County's child maltreatment reports have been increasing in recent years, but the rate of reports remains lower than the state.
- Self-neglect is the primary form of elder abuse reported in Wisconsin and Door County.
- Elder abuse reports in Wisconsin and Door County have been increasing over the last 10 years.
- Wisconsin is behind the national average in safety belt use.
- Most child safety seat inspections in Door County revealed that safety seats have been incorrectly installed.
- The most common cause of injury and hospitalization in Door County was from falls.

## Door County Citizen Survey Report, 2009

In May 2009, the Survey Research Center (SRC) at the University of Wisconsin – River Falls mailed surveys to 1,123 Door County residences. The surveys were followed up with reminder postcards and a second mailing to non-respondents. The overall response rate was 45 percent (506 completed questionnaires).

Door County respondents were asked to rate the importance of human services and health related functions. Again, large majorities gave high ratings to most items listed (see chart). At least four of five respondents rated the following as “very important” or “important:” public health services, family services, senior services, long-term care services, and financial services

### Importance of Human Services and Health



Door County respondents gave high levels of importance to county operations and services related to the protection of the County’s natural resources and environment. Water quality topics were at the top of the rankings. More than nine in ten respondents said protecting ground and surface water quality is “very important” or “important.”

**Protecting ground and surface water quality** was rated as **the number one priority** in comparison to thirty county services. Nearly as many, 87%, placed high importance on monitoring the water quality of the beaches and posting appropriate notices when problems are observed.

(Source: *Door County Citizen Survey Report*, 2009, James Janke, David Trechter, Shelly Hadley, Survey Research Center at UW-River Falls Report 2009/23, September 2009)

## Door County Community Resources

**County of Door Website:** <http://www.co.door.wi.gov/>

**Wisconsin Beach Health website:** [www.wibeaches.us](http://www.wibeaches.us)

Provides up-to-date information regarding water quality at Wisconsin beaches

**Get the Meds Out! Program** to dispose of prescription medication.

<http://www4.uwm.edu/shwec/meds/index.cfm>

**Wisconsin Department of Health Services:** <http://www.dhs.wisconsin.gov/>

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**HELP of Door County, Inc., Eliminating Domestic Abuse ~ 24hr Domestic Abuse Hotline 920.743.8818 / 800.914.3571**—The mission of HELP of Door County, Inc. is to eliminate domestic abuse through prevention and intervention services and to advocate for social change.

**Other Resources that are listed on the HELP of Door County, Inc. website**

<http://www.helpofdoorcounty.org/home> :

AA/115 Club (Alcoholics Anonymous) – 800-746-0091 or 920-746-0900

Bellin Psychiatric Center in Green Bay – 920-433-7544

Boys & Girls Club – 920-746-5125

Community Clinic – 920-746-8989

Community Programs – 920-746-2345

Compassionate Friends – 920-868-1488

Counseling Associates – 920-743-9554

Dental Clinic – 920-493-1300

Door County District Attorney – 920-746-2284

Family Centers of Door County 1-800-856-1651 or 920-856-6616

Family Service Association – Green Bay 920-436-6800

Feed My People – 920-743-9053

FISC Financial planning – 920-743-1862

Habitat for Humanity – 920-839-9651

Healthy Families – 920-746-9040 (age 0-5)

Hospice – 920-743-6440

Housing Authority – 920-743-2545

Humane Society– 920-746-1111

Job Center – 920-743-6915  
Lakeshore CAP – 920-743-0192 (food, emergency housing, homebuyers assistance)  
Legal Aid Society – 920-743-3934  
Libertas – 920-743-9889  
National Alliance for the Mentally Ill (NAMI ) – 920-743-6162 or 920-868-2912  
Police – 920-746-2450 (Sturgeon Bay)  
Probation/Parole – 920-746-3920  
Red Cross– 920-746-2167  
Salvation Army (Social Services) – 920-746-2300  
Senior Center – 746-2542 / 1-888-743-1844  
Senior Resource Guide  
Sexual Assault Center – 920-746-8996  
Door County Sheriff – 920-746-2400  
Social Services of Door County – 920-746-2300  
VIP Violence Intervention Project (Kewaunee County)– 920-487-2111  
VIP Crisis Line – 920-837-2424  
Wellness Center– 920-746-9444  
Women’s Employment Project – 920-743-7273

**Additional Resource LINKS:**

**Door County Community Foundation** <http://www.doorcountycommunityfoundation.org/>

**National Coalition Against Domestic Violence** <http://www.ncadv.org/>

**Prevent Child Abuse Wisconsin** <http://www.preventchildabusewi.org/>

**United Way of Door County** <http://www.unitedwaydc.com/>

**WBDK Door County Daily News** <http://www.doorcountydailynews.com/>

**Wisconsin Coalition Against Domestic Violence** <http://www.wcadv.org/>

**Wisconsin Coalition Against Sexual Assault** <http://www.wcasa.org/>

**Wisconsin Job Search** <https://jobcenterofwisconsin.com/>

**Senior Resource Guide** <http://www.co.door.wi.gov/docview.asp?docid=36&locid=137> or  
[http://www.helpofdoorcounty.org/media/AA/AD/helpofdoorcounty-org/downloads/4425/Senior\\_Resource\\_Guide.pdf](http://www.helpofdoorcounty.org/media/AA/AD/helpofdoorcounty-org/downloads/4425/Senior_Resource_Guide.pdf)

**Supervised Visitation Network** <http://www.svnetwork.net/>